

Exhibits in Support of Complaint Under Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d, and 40 C.F.R. Part 7 Regarding Discrimination by the State of Mississippi Gravely Adversely Impacting the Drinking Water System for the City and the Health and Well Being of the People of Jackson, Mississippi

Ex. No.	Description
1	Declaration Of Public Health Experts David Bellinger, PhD, MSc; Hilary Godwin, PhD; Dr. Lynn R. Goldman, MD, MS, MPH; Charles Haas, PhD; Richard J. Jackson, MD, MPH; Bruce Lanphear, MD, MPH; Thomas A. LaVeist, PhD; Janet A. Phoenix, MD, MPH; And Joan B. Rose, PhD In Support Of Title VI Complaint,
2	Declaration Of (b)(6) Privacy, (b)(7)(C) Enf. Privacy
3	Declaration Of Jackson Resident In Support Of Title VI Complaint
4	Declaration Of Jackson Resident In Support Of Title VI Complaint, attached as Ex. 4
5	Declaration Of (b)(6) Privacy, (b)(7)(C) Enf. Privacy In Support Of Title VI Complaint, attached as Ex. 5
6	Declaration Of Jackson Resident In Support Of Title VI Complaint, attached as Ex. 6
7	Declaration Of Jackson Resident In Support Of Title VI Complaint
8	Declaration Of Jackson Resident In Support Of Title VI Complaint
9	Declaration Of Jackson Teacher In Support Of Title VI Complaint
10	City of Jackson, Miss., Administrative Compliance Order on Consent, Docket No. SDWA-04-2020-2301
11	Letter from Mayor Chokwe A. Lumumba to Lieutenant Governor Delbert Hosemann (Mar. 12, 2021)
12	Letter from Carol Kemker, Dir. Enf't & Compliance Assurance Div. to Mayor Chokwe A. Lumumba (Apr. 26, 2021)
13	Letter from Carol Kemker, Dir. Enf't & Compliance Assurance Div. to Mayor Chokwe A. Lumumba (Mar. 27, 2020)

EXHIBIT 1

DECLARATION OF PUBLIC HEALTH EXPERTS:

**DAVID BELLINGER, PHD, MSC
PROFESSOR OF NEUROLOGY AND PSYCHOLOGY
HARVARD MEDICAL SCHOOL
PROFESSOR, DEPARTMENT OF ENVIRONMENTAL HEALTH
T.H. CHAN SCHOOL OF PUBLIC HEALTH, HARVARD UNIVERSITY**

**HILLARY GODWIN, PHD
DEAN, UNIVERSITY OF WASHINGTON SCHOOL OF PUBLIC HEALTH AND
PROFESSOR, DEPT. OF OCCUPATIONAL AND ENVIRONMENTAL HEALTH
SCIENCES**

**LYNN R. GOLDMAN, MD, MPH, MS
MICHAEL AND LORI MILKEN DEAN AND PROFESSOR OF ENVIRONMENTAL
AND OCCUPATIONAL HEALTH
MILKEN INSTITUTE SCHOOL OF PUBLIC HEALTH
THE GEORGE WASHINGTON UNIVERSITY**

**CHARLES N. HAAS, PHD, NAE, DIST. F IWA, F. AEESP, F ASCE, F AAAS, F AAM, F
SRA, BCEEM
LD BETZ PROFESSOR OF ENVIRONMENTAL ENGINEERING
DEPT. OF CIVIL, ARCHITECTURAL & ENVIRONMENTAL ENGINEERING
DREXEL UNIVERSITY**

**RICHARD J. JACKSON, MD, MPH
PROFESSOR EMERITUS OF ENVIRONMENTAL HEALTH SCIENCES,
FIELDING SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF CALIFORNIA, LOS ANGELES.**

**BRUCE P. LANPHEAR, MD, MPH
PROFESSOR OF CHILDREN'S ENVIRONMENTAL HEALTH
SIMON FRASER UNIVERSITY**

**THOMAS A. LAVEIST, PHD
DEAN AND WEATHERHEAD PRESIDENTIAL CHAIR
SCHOOL OF PUBLIC HEALTH & TROPICAL MEDICINE
TULANE UNIVERSITY**

**JANET A. PHOENIX, MD, MPH
ASSISTANT RESEARCH PROFESSOR OF HEALTH POLICY AND MANAGEMENT
MILKEN INSTITUTE SCHOOL OF PUBLIC HEALTH
THE GEORGE WASHINGTON UNIVERSITY**

**JOAN B. ROSE, PHD
HOMER NOWLIN CHAIR IN WATER RESEARCH
DEPT OF FISHERIES AND WILDLIFE
MICHIGAN STATE UNIVERSITY**

IN SUPPORT OF TITLE VI COMPLAINT

We, Dr. David Bellinger, Dr. Hilary Godwin, Dr. Lynn R. Goldman, Dr. Charles Haas, Dr. Richard Jackson, Dr. Bruce Lanphear, Dr. Thomas A. Laveist, Dr. Janet Phoenix, and Dr. Joan Rose state as follows:

1. We are each over 18 years of age, and we make this declaration based upon our own personal knowledge and expertise.
2. I, David Bellinger, PhD, MSc, am a pediatric neuropsychologist and environmental epidemiologist, based at Boston Children's Hospital. I received a Ph.D. in Psychology from Cornell University in 1977 and a M.Sc. in Epidemiology from the Harvard School of Public Health in 1987. I am a Professor of Neurology and Professor of Psychology in the Department of Psychiatry at Harvard Medical School, and a Professor in the Department of Environmental Health at the Harvard T.H. Chan School of Public Health. My research focuses primarily on the neurodevelopmental sequelae of childhood disorders and diverse environmental chemical exposures. I have worked on the problem of childhood lead poisoning since 1979 and contributed studies that, with other studies, have provided the basis for the dramatic changes that have occurred since that time in what is considered to be acceptable lead exposures in children. I have served on numerous committees at the National Academies, the Environmental Protection Agency, the Food and Drug Administration, National Institutes of Health, and the World Health Organization. I am a founding member of the International Society for Children's Health and the Environment and served as its President for its first six years. I chaired the recent World Health Organization (WHO) Committee on Guidelines for the Diagnosis and Treatment of Lead Poisoning, am currently a member of the WHO Expert Advisory Panel on Food Safety, and am a former member of the WHO's Foodborne Disease Epidemiology Reference Group.
3. I, Hilary Godwin, PhD, am dean of the University of Washington School of Public Health and professor in the Department of Environmental & Occupational Health Sciences. I am an academic leader with expertise in interdisciplinary collaborative research on nanotoxicology and the biochemistry of lead poisoning and its impact on public health. I earned a B.S. (University of Chicago, chemistry) and Ph.D. (Stanford, physical chemistry), and have supervised research programs in mechanistic toxicology and environmental health. I previously served as associate dean for academic programs as well as chair of environmental health sciences for the Fielding School of Public Health at the University of California, Los Angeles. I also served as chair of the chemistry department at Northwestern University, where I was the first woman hired into a tenure-track position. I have received the Camille Dreyfus Teacher-Scholar award, the Alfred P. Sloan Research Fellowship, the National Science

Foundation CAREER award, the Burroughs Wellcome Fund Toxicology New Investigator award and the Camille and Henry Dreyfus New Faculty award.

4. I, Dr. Lynn R. Goldman, MD, MS, MPH serve as the Michael and Lori Milken Dean of the Milken Institute School of Public Health and as a Professor of Environmental and Occupational Health at The George Washington University in Washington, D.C. I am a board-certified pediatrician and an epidemiologist and hold a B.S. and M.S. from the University of California at Berkeley, an M.D. from the University of California San Francisco, and an M.P.H. from Johns Hopkins University. I formerly served as the Presidentially appointed, Senate-confirmed Assistant Administrator for Toxic Substances at the U.S. Environmental Protection Agency, where I oversaw the Office of Chemical Safety and Pollution Prevention. I helped to achieve passage of reforms to the federal pesticide law (the 1996 Food Quality Protection Act), the federal chemicals law (the 2016 Lautenberg Chemical Safety Act for the 21st Century) legislation to establish California's Childhood Lead Poisoning Prevention Program, and advised on EPA's efforts to enact drinking water reforms in the Safe Drinking Water Act of 1996. I oversaw the development of EPA's regulations on lead paint and dust abatement. I previously held appointments as Professor of Environmental Health Sciences at the Johns Hopkins University Bloomberg School of Public Health and as Chief of the Division of Environmental and Occupational Disease Control at the California Department of Public Health. I serve on the National Research Council (NRC) Environmental Health Matters Initiative, am the immediate past Chair of the Association of Schools and Programs of Public Health, and a member of the Centers for Disease Control Advisory Committee to the Director and the National Institutes of Health National Advisory Environmental Health Sciences Council. Among several investigations, I previously served as an Expert to the independent review led by former U.S. Attorney General Eric Holder of Covington & Burling, LLP, of the lead in drinking water issues affecting the District of Columbia Water and Sewer Authority.¹ I am a member of the National Academy of Medicine (NAM) and have received the NAM Walsh McDermott Award for service to the Academy.
5. I, Charles Haas, PhD, serve as the LD Betz Professor of Environmental Engineering in the Dept. of Civil, Architectural & Environmental Engineering at Drexel University. I received my B.S. (Biology) and M.S. (Environmental Engineering) from the Illinois Institute of Technology and a Ph.D. in Environmental Engineering from the University of Illinois at Urbana-Champaign. I co-directed the USEPA/DHS University Cooperative Center of Excellence – Center for Advancing Microbial Risk Assessment (CAMRA). I am a fellow of the International Water Association, American Academy for the Advancement of Science, the Society for Risk Analysis, the American Society of Civil Engineers, the American Academy of Microbiology, and the Association of Environmental Engineering and Science Professors. I also am a Board Certified Environmental Engineering Member by eminence of the American Academy of Environmental Engineers. I have specialized in the assessment of risk from and control of human exposure to pathogenic microorganisms, and in particular the treatment of water and wastewater to minimize microbial risk to human health. I have served on numerous panels of the National Research Council, and am a past member of the Water Science and

¹ See Holder, Eric, Summary of Investigation Reported to the Board of Directors of the D.C. Water and Sewer Authority (2004), available at <https://www.washingtonpost.com/wp-srv/metro/specials/water/wasa071604.pdf>.

Technology Board of the National Academies, as well as the U.S. EPA Board of Scientific Counselors. I am a member of the National Academy of Engineering.

6. I, Richard J. Jackson, MD, MPH, am professor emeritus of Environmental Health Sciences at the Fielding School of Public Health at the University of California, Los Angeles. A pediatrician, I have served in many leadership positions with the California Health Department, including the highest as the State Health Officer; for that service I received the Department's highest Public Health award in April, 2022. For nine years, I was Director of the Center for Disease Control's National Center for Environmental Health and received the Presidential Distinguished Service award. I was instrumental in establishing the California Birth Defects Monitoring Program and in the creation of state and national laws to reduce risks from pesticides, especially to farm workers and to children. While at the Centers for Disease Control, I established major environmental public health programs and instituted the federal effort to "biomonitor" chemical levels in the U.S. population, including lead. I have received the Hero Award from the Breast Cancer Fund, Lifetime Achievement Awards from the Public Health Law Association and the New Partners for Smart Growth, the John Heinz Award for national leadership in the Environment, and the Sedgwick Medal, the highest award of the American Public Health Association. In 2015, I received the Henry Hope Reed Award for contributions to the field of Architecture and Planning. I am a member of the National Academy of Medicine.
7. I Bruce Lanphear, MD, MPH, am professor of Children's Environmental Health at Simon Fraser University. I hold an M.P.H. from the Tulane School of Public Health & Tropical Medicine and an M.D. from the University of Missouri at Kansas City. I am a board-certified physician in public health and preventive medicine. I have conducted research on the sources of lead exposure and the health impacts of childhood lead poisoning for over 25 years. I have led studies used by federal agencies to set standards for lead in air, water and house dust, and my studies were the impetus for federal agencies to conclude that no amount of lead is safe for children. I have served on numerous science advisory committees of the U.S. EPA, the Centers for Disease Control, the National Toxicology Program of the National Institutes of Health, the National Academies of Science, and the American Academy of Pediatrics. I am currently a member of the U.S. EPA's science advisory panel for the national air lead standard.
8. I, Thomas A. LaVeist, PhD, serve as the Dean & the Weatherhead Presidential Chair in Health Equity at the School of Public Health & Tropical Medicine at Tulane University in New Orleans, Louisiana. I hold a B.A. from the University of Maryland Eastern Shore, a M.A. and a Ph.D. from the University of Michigan and completed my Postdoctoral Fellowship in Gerontology and Public Health Policy at the University of Michigan. I previously served as Chairman and Professor of the Department of Health Policy and Management at the Milken Institute School of Public Health at The George Washington University, after serving for twenty-five years on the faculty of the Department of Health Policy and Management of the Bloomberg School of Public Health at Johns Hopkins University. My research has focused on developing policy and interventions to address race disparities in health-related outcomes. Specific areas of expertise include: U.S. health and social policy, the role of race in health research, social factors contributing to mortality, longevity and life expectancy, quantitative and demographic analysis and access, and utilization of health services. I am a member of the National Academy of Medicine.

9. I, Janet A. Phoenix, MD, MPH, am an Assistant Research Professor of Health Policy and Management at the Milken Institute School of Public Health, George Washington University. I am the manager of public health programs for the Environmental Health Center of the National Safety Council, a non-profit organization providing information to the public on critical issues in health, the environment, and safety. I formerly managed the National Lead Information Center, a federally funded hotline and clearinghouse, and was the Director of Health Education for the Alliance to End Childhood Lead Poisoning, a national advocacy organization now known as the Alliance for Healthy Housing. I received an M.D. from Howard University in 1989 and a master's in public health from Johns Hopkins University in 1990. I have served on the Environment Committee of the American Public Health Association, as member of the Centers for Disease Control and Prevention's Lead Poisoning Advisory Committee, the EPA Children's Health Protection Advisory Committee, and as an advisor to the Agency for Toxic Substances and Disease Registry (ATSDR).
10. I, Joan B. Rose, PhD, hold the Homer Nowlin Chair in Water Research at Michigan State University in the Departments of Fisheries & Wildlife and Plant, Soil and Microbiological Science. and currently lead the Global Water Pathogens Project in partnership with UNESCO. www.waterpathogens.org; <http://www.rose.canr.msu.edu/>. I am a public health microbiologist and study waterborne pathogens. I am the winner of the 2016 Stockholm Water Prize and a Fellow of the American Academy of Microbiology and American Academy for the Advancement of Science. I am a Distinguished Fellow of the International Water Association. I have served on numerous committees for the National Academies and on the Board of the Water Science and Technology. I have worked with the Department of Justice on issues related to the Clean Water Act. I am a member of the National Academy of Engineering.
11. In formulating our opinions, we have reviewed records that include the Notices of Violations to the Jackson Public Water Treatment System issued by the U.S. Environmental Protection Agency, boil water notices issued by the Mississippi Department of Health, EPA system investigation reports, and public reporting on the situation in Jackson, Mississippi. We have also relied upon our decades of practice, academic work, and government service in supporting our conclusions. Our views reflect our own expert opinions and do not necessarily represent the opinions of the institutions where we each serve.
12. The fundamental expectation created by Congress in the Safe Drinking Water Act – that people in all communities in the United States are assured public delivery of adequate amounts of safe drinking water that meets EPA standards, as enforced by states and implemented by local authorities and water suppliers -- is not being met in Jackson. EPA standards for drinking water are either maximum contaminant levels (MCLs) for pollutants (or classes of pollutants), as well as treatment requirements for specific contaminants in public drinking water. Unfortunately, for people in Jackson, Mississippi, the promise of protection of drinking water supplies has not been fulfilled over a long period of time. Most recently, and intermittently over the years, this frail and unreliable system has been shut down after flooding, depriving citizens of even water to bathe and to flush toilets.
13. Unfortunately, such outages are not new in Jackson, which has suffered several water supply shutdowns in the wake of flooding and other breakages causing loss of water pressure in the supply system. Residents of Jackson have been exposed to the sight of dirty and brackish water

from their taps that contaminates their drinking water and damages their household plumbing, as well as the drinking water system. Such incidents cause a lack of confidence in public drinking water, yet bottled water is too expensive for many. Such a lack of confidence is not unfounded; we understand that state hospitals and other state facilities located in Jackson have developed their own drinking water wells, to assure reliable supplies of clean water that meets health standards.

14. Moreover, Jackson has had repeated episodes in which water was too contaminated to consume from the tap because of coliform and other microbiologic contaminants, prompting recurring orders to boil water used for drinking and cooking. The aging pipes, understaffed operational personnel, and inadequate treatment facilities result in water that is improperly treated in the first place, flowing in a system that often has too little pressure to prevent the overgrowth of bacteria, thereby compounding the public health risks. The continual boil water notices (over 750) due to pipe breaks are also a microbiological public health threat. This extraordinary number of boil water notices is indicative of a deeply troubled water system, and the constant pipe breaks likely indicate the leakage of contaminants into the treatment system on a continual basis.
15. The drinking water in Jackson has repeatedly been in violation of the EPA Lead and Copper Rule. Violations have included: elevated levels of lead in tap water; failure, over several years, to establish an optimal corrosion control treatment to bring down the levels of lead in tap water; excessive turbidity; and inadequate communications to the public.
16. At the same time, the drinking water in Jackson has been found repeatedly to be in violation of the U.S. EPA maximum contaminant level (MCL) for by products of disinfection called haloacetic acids (HAAs), some of which have been identified as possible human carcinogens by national and international authorities. The MCL for total HAAs is 60 micrograms per liter ($\mu\text{g/L}$), as a locational running annual average at each monitoring location. Jackson's testing results showed average levels above the MCL in both 2020 and 2021, elevating the risk of cancer. While the risks of ingesting HAAs are outweighed by the benefits, high levels of HAAs are indicative of insufficient treatment prior to or overuse of disinfection and considered to impose unnecessary cancer risks to the public.
17. Jackson, Mississippians are vulnerable. Of 149,681 people residing in Jackson in 2021, 7.1% are under five years of age and 13% are 65 years old or over. Among those under the age of 65, 16.5% lack health insurance. According to the U.S. Census 82.5% are black, 15.4% white, non-Hispanic, and the remainder are Hispanic, multiracial, or other racial and ethnicities. Nearly one in four of Jackson's residents (24.5%) live in poverty.
18. Generally, the State of Mississippi has poorer health status than other U.S. states. According to the Mississippi Department of Health, the State of Mississippi has the highest rate of premature death in the United States (U.S.) with 500.9 deaths per 100,000 (MSVitalRecords,2016). Mississippi has the highest rate of infant mortality in the U.S. with a total rate of 8.6 deaths per 1,000 live births (2016). There is a large racial disparity for adult chronic diseases like heart disease, stroke, diabetes and cancer, and in infant mortality rates with the rate among whites at 6.8 and that for blacks at 11.4 per 1,000 live births (2016).

Indeed, these chronic diseases are the subject of an extensive cohort study.² As the poorest state in the nation, Mississippi faces greater challenges than many other states to prevent and combat illnesses.³ Contaminated drinking water contributes to higher rates and more severe incidences of illness and disease in Jackson than in other areas with better overall health baselines.

19. Children in Mississippi including in Hinds County (home to Jackson, MS) have been documented to be at risk for lead exposure.⁴ Lead is hazardous to people of all ages but children under five are the most vulnerable. The most significant health burdens are manifested by neurotoxic effects on cognition and behavior, cardiovascular and renal effect. Lead's neurologic effects on kids are exacerbated by poverty, undernutrition, and living in less stimulating environments and those that are more stressful.
20. It is well known that in public water treatment plants that coliforms or excessive turbidity have been associated with outbreaks of illnesses from parasites, bacteria and viral pathogens.⁵ The monitoring conducted by drinking water programs in the US primarily has a focus on the identification of coliforms in drinking water. While these may be pathogenic in themselves, they also are indicators for other microbiologic pollutants in water, many of which are enhanced in conditions such as those identified in Jackson (water stagnation, inconsistent disinfection treatment, vulnerability to massive rainfall events and systems with breaks and backflows allowing the intrusion of pathogens after treatment). Risks are greatest to children under five, the elderly and people with various chronic diseases that make them vulnerable, e.g., renal disease, HIV, transplants, cancer as well as people who suffer food insufficiency.
21. Residual levels of the disinfectant byproducts HAAs in drinking water are often too high, exposing residents of Jackson to possible human carcinogens. Overall in Mississippi, both black males and black females have higher cancer mortality rates than their white counterparts.⁶ While elevated levels of HAAs in drinking water would be expected to contribute to a modest extent to overall cancer burden, nonetheless this is adding to a cumulative burden of cancer in a population already suffering a higher risk of cancer mortality.
22. Lack of reliable delivery of household water, in itself, is a cause of public health risks. Many aspects of healthy living are impacted when households lack water. It may be difficult to find water to flush toilets, wash hands, brush teeth and clean food preparation areas and dishes, creating risks for decreased household hygiene. While bottled water may be available, it is relatively expensive and use of household income to purchase bottled water can cut into household budgets for adequate and nutritious food, as well as paying rent and utility bills.

² See : [Jackson Heart Study - Mississippi State Department of Health \(healthymississippi.com\)](http://healthymississippi.com/).

³ Mississippi State Department of Health. Office of Health Data and Research. Hinds County Health Profile. 2017.

⁴ Office of Child & Adolescent Health, Office of Health Data and Research, Mississippi State Department of Health. Mississippi Lead Poisoning Prevention and Healthy Homes Program (LPPHPP) 2012-2016 Surveillance Report. March 2018. https://msdh.ms.gov/msdhsite/_static/resources/19263.pdf

⁵ Craun GF, Brunkard JM, Yoder JS, Roberts VA, Carpenter J, Wade T, Calderon RL, Roberts JM, Beach MJ, Roy SL. Causes of outbreaks associated with drinking water in the United States from 1971 to 2006. Clin Microbiol Rev. 2010 Jul;23(3):507-28. doi: 10.1128/CMR.00077-09. PMID: 20610821; PMCID: PMC2901654.

⁶ Mississippi State Department of Health. Burden of Cancer – Mississippi. March 2015. <https://msdh.ms.gov/page/resources/6191.pdf>

Washing clothes away from home may be expensive but this may be an economic necessity, e.g., for maintenance of employment. When water service is cut off this can create yet another source of stress to all in a household, stress that is in addition to already very stressful life circumstances that might be associated with racism, limited economic circumstances and lack of political power.

23. In addition to the hazards of poor sanitation and dehydration posed by the lack of safe drinking water, particularly in a warm climate, Jackson residents face greater lasting stress and mental health challenges resulting from these incidents as well, as has been well documented in comparable circumstances in Flint, Michigan.⁷”
24. Another significant challenge facing Jackson is the lack of resilience in its fragile drinking water system, and thus its inability to handle ever greater climate-induced events -- making the system even more vulnerable to events like the recent Pearl River flooding. The health impacts we have noted are likely to become even more prominent and debilitating without significant improvements to the baseline resilience of Jackson’s drinking water system.

⁷ See [Prevalence of Depression and Posttraumatic Stress Disorder in Flint, Michigan, 5 Years After the Onset of the Water Crisis | Depressive Disorders | JAMA Network Open | JAMA Network](#).

We each declare that our statements are true and correct.

/s/ Dr. David Bellinger, PhD

Date: 9/26/22



Dr. Hilary Godwin, PhD

Date: 9/26/2022



Dr. Lynn R. Goldman, MD, MS, MPH

Date: 9/26/2022


/s/ Dr. Charles Haas, PhD

Date: 9/26/2022



Dr. Richard J. Jackson, MD, MPH

Date: 9/26/2022



Bruce Lanphear, MD, MPH

Date: September 25, 2022

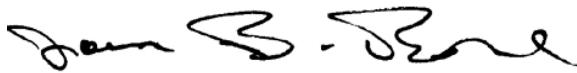


Dr. Thomas A. LaVeist, PhD

Date: 9/26/2022

/s/ Dr. Janet Phoenix, MD, MPH

Date: 9/26/2022



Dr. Joan B. Rose

Date: 9/26/2022

EXHIBIT 2

**DECLARATION OF (b)(6) Privacy, (b)(7)(C) Enf. Privacy IN SUPPORT OF
TITLE VI COMPLAINT**

(b)(6) Privacy, (b)(7)(C) Enf. Privacy declare as follows:

1. My name is (b)(6) Privacy, (b)(7)(C) Enf. Privacy

I live in Jackson, Mississippi, and have done so for (b)(6) Privacy, (b)(7)(C) Enf. Privacy years. And, while I've lived in Jackson, water issues have been a constant problem for me, my family, and the broader community I work with and represent across the city.

2. Where I live, we have had almost constant boil-water notices. We can't trust the water to drink, bathe, or use for cleaning, so, even when there isn't a boil-water notice, we typically try to buy bottled water or boil whatever water we use. But most recently, we've been told that we even have to boil our water before we wash our dishes.

3. During the August water crisis, I bought and distributed bottled water to economically disadvantaged people in Jackson and to individuals with mobility issues. I saw and heard from them about how our water inequality economically burdens them, disrupts their lives, and causes health effects that Black and low-income people disproportionately shoulder. For example, some of the people I brought water to couldn't afford to buy water at all, and so they worried that they simply wouldn't have any access to usable drinking water.

4. For decades, the State of Mississippi has neglected Jackson's drinking water facilities and refused to fund needed repairs, not to mention modernizations. Even as Jackson's water problems have grown, the State has looked the other way—refusing to give Jackson access to its fair share of the federal funds that it needs and sending money to smaller towns that don't need

the funds as much but have a lower proportion of Black residents. In Jackson, we suffer the results of this disinvestment almost every day.

5. The Jackson water crisis reflects the core of the concerns of unequal and disparate treatment on the basis of race that the NAACP exists to address.

I DECLARE THAT, TO THE BEST OF MY KNOWLEDGE, THE FOREGOING IS TRUE AND CORRECT.

Executed this 27th day of September, 2022.

(b)(6) Privacy, (b)(7)(C) Enf. Privacy



EXHIBIT 3

DECLARATION OF (b) (6), (b) (7)(C)

(b)(6) Privacy, (b)(7)(C) Enf. Privacy

state as follows:

1. I am over 18 years of age, and I make this declaration based upon my own personal knowledge.

2. I have lived in Jackson, Mississippi since (b) (6), (b) (7)(C)

3. As long as I have lived in Hinds County, Mississippi, there have been water issues, but the water problems have grown over the last year. Other than the first year that I lived in Jackson, I have used bottled water. At first, I had to carry bottles of drinking water from the store. Now, I have a water cooler in my home. Water is delivered to my garage. I then must rely on others to help me move the five-gallon jugs into my house. Cooking with bottled water is expensive. I cannot use my ice maker and must purchase bags of ice when needed. Because it has been going on for so long, not being able to drink water from the faucet has become normalized.

4. I am a (b) (6), (b) (7)(C) I fear that drinking Jackson's bad water may exacerbate my condition.

5. I could not use Jackson's water following the ice storm in 2021. The water was discolored. I could not judge whether it had an odor because I have lost my sense of smell due to chemotherapy.

6. In addition to not being able to drink Jackson's water, in August 2022, the toilets in my house were sluggish in flushing. I had to fill the bathtub with water so as to manually flush the toilets. When the bathtub was empty, there was a thick film left in the tub, which I had to clean with bleach. I am no longer comfortable bathing in water from the tap.

7. (b) (6), (b) (7)(C) (b) (6), (b) (7)(C) complaining about how (b) (6), (b) (7)(C) skin feels after he showers. (b) (6), (b) (7)(C) had to change the location of where he takes showers, and (b) (6), (b) (7)(C) was forced to see a physician as a result of his contact with the water.

8. Members of my community have had to deliver water to older and infirm members of our community during the most recent water crisis.

9. I feel that the State's misuse of funds has contributed to the water issues faced by myself and other Jackson residents.

I DECLARE THAT, TO THE BEST OF MY KNOWLEDGE,
THE FOREGOING IS TRUE AND CORRECT.

Executed this 27th day of September, 2022.

(b)(6) Privacy, (b)(7)(C) Enf. Privacy

09/27/2022

EXHIBIT 4

DECLARATION OF

(b)(6) Privacy, (b)(7)(C) Enf. Privacy

I, (b)(6) Privacy, (b)(7)(C) Enf. Privacy, state as follows:

1. I am over 18 years of age, and I make this declaration based upon my own personal knowledge.

2. I am an (b) (6), (b) (7)(C) I have lived in Jackson all my life, or (b)(6) Privacy, (b)(7)(C) Enf. Privacy I am a graduate of (b) (6), (b) (7)(C) and, after college, I worked in a variety of roles in Jackson, including for the (b) (6), (b) (7)(C) and then, for over two decades, at (b) (6), (b) (7)(C) (b) (6), (b) (7)(C) in 2006. Since then, I have worked for a number of

(b) (6), (b) (7)(C)

3. There have been problems with my family's water for more than 50 years. At the start, our water issues were pretty minor—in the early 1950s, the state helped construct a massive reservoir to help provide water to Jackson, which, at the time was majority white.

4. As Jackson's Black population grew, the water problems seemed to get worse. I lived with my parents after college in the early (b) (6), (b) (7)(C) I remember my father explaining to me that he wouldn't drink water out of our faucet unless it came from the hot-water tank first, because he believed that the tank boiled the water. He pointed out to me that, on the back of our water bill, there was a notice that told consumers to take precautions when using the water because there were unsafe levels of trihalomethane, which is carcinogenic.

5. A few years later, I found a source that would provide artesian well water that we could use for free. All you had to do was bring your own container. I'd bring the containers and pick up water for my parents. When that closed down, we started buying water from a company that I

think was called Mississippi Bottled Water. They would deliver water to us in 5-gallon water containers.

6. When (b) (6), (b) (7)(C), we continued getting 5-gallon water containers from the same place. In the early 1980s, I bought a water purification system that you attach to your tap and switched to that for a few years.

7. After the company that made the filters went out of business in the mid-1980s, I started buying bottled water. And we have been buying bottled water since then and using it for all of our family's drinking needs. I remember using bottled water for my (b) (6), (b) (7)(C)

8. Having to buy water added expenses for us, but, in some ways, transitioning to bottled water early helped insulate us from the very worst of Jackson's water problems. Like everyone, we still consistently experienced a number of water problems. One year in the late 1980s, for example, there was a freeze right around Christmas that caused Jackson's water delivery pipes to shut down. We had guests who were staying with us, and we didn't have water for showers or household tasks. You couldn't flush the toilet or anything without bottled water.

9. Of course, the water disruptions have gotten dramatically worse recently, as the neglect by the state has caused the water facilities in Jackson to be heavily underfunded and poorly maintained. In 2020, an ice storm hit Jackson and disrupted the water delivery system again. We had ice on the ground for five or six days, but the water was out for longer than that. When there was ice outside, my (b) (6), (b) (7)(C) and I would go out and cut ice chunks that we'd take inside, let melt, and then use for household chores or to flush the toilet. Once the ice melted, we would go to pick-up stations where they offered water, and then we'd drag five-gallon buckets with water home.

10. This August, we had a month of a constant boil-water notice and low water pressure. At the end of the month, after heavy rains caused the Pearl River and the natural reservoir that supplies Jackson with water to flood, our water slowed and then went out entirely.

11. My [REDACTED] and I have been dealing with boil-water notices for such a long period of time that we haven't been using the water as a drinking source, so we were better off than many during the August crisis. We're fortunate that we're able to afford bottled water. And we've gotten used to stockpiling water when it rains heavily or at times of year when Jackson's water is likely to be disrupted, like hurricane season or during the winter. We always try to keep big containers of water to flush the toilet or use for household chores.

12. But even for us, our water problems cause real distress. My [REDACTED] and I both take a (b) (6), (b) (7)(C), which require us to drink more water and less pop or juice. Our doctors tell us that the worst thing that we can do is let ourselves get dehydrated. That's a very anxiety-provoking thought to worry about when you know that the water that comes out of your taps is often undrinkable, or when you don't have any water at all.

13. The water disruption in August also devastated our schools. Schools had to close down for a week, and a lot of children were out of school for more than a week. That didn't just keep those students out of school—it also kept their parents out of work, because many of them had to stay home with their children to look after them. I am sure that staying home from work jeopardized some number of parents' jobs.

14. The consequences are going to last for our kids and even for our schools' funding, because of the way that Mississippi funds its public schools. The state uses an average daily attendance to determine how much assistance to provide to schools. But the water disruptions kept more children at home, which means that the average attendance was probably lower than it

actually is. Going forward, we may end up with more kids attending than are counted, which will strain our schools ability to provide the resources our children deserve.

15. There is a long history at play here. When Mississippi had to desegregate its schools after *Brown*, the state responded by creating private schools or council schools, which maintained a high degree of segregation. When it had to integrate public recreational facilities after the civil rights bills, it closed all of these facilities, including its pools, rather than allowing people to use them in anything like an equal way.

16. None of that history just goes away. There are still over 30 school districts around the state that are under a consent decree. And we see the legacy of discrimination in Jackson's water system, which the state has steadfastly refused to provide enough funding for.

17. Mississippi is and has been a tough state when it comes to discrimination. We're experiencing that today.

I DECLARE THAT, TO THE BEST OF MY KNOWLEDGE, THE FOREGOING IS TRUE AND CORRECT.

Executed this 26 day of September, 2022.

(b)(6) Privacy, (b)(7)(C) Enf. Privacy



EXHIBIT 5

DECLARATION OF (b)(6) Privacy, (b)(7)(C) Enf. Privacy

I, (b)(6) Privacy, (b)(7)(C) Enf. Privacy state as follows:

1. I am over 18 years of age, and I make this declaration based upon my own personal knowledge.

2. I have lived in Jackson, Mississippi since (b)(6) Privacy, (b)(7)(C) Enf. Privacy

(b)(6) Privacy, (b)(7)(C) Enf. Privacy

3. When I first came to office, the Mississippi Department of Environmental Quality was threatening to fine Jackson for discharging contaminants into the Pearl River from the J.H. Fewell water plant.

4. My (b)(6) Privacy, (b)(7)(C) and my household was personally affected by the August 2022 boil water alert and low water pressure. The water was cloudy, and even after boiling it, we decided not to drink it. We purchased bottled water, which we used for drinking, brushing our teeth, and washing produce and vegetables.

5. I have a friend who requires dialysis. Low water pressure at the dialysis center disrupted (b)(6) Privacy treatment.

6. The State historically could have, and should have, done more to assist Jackson with the improvements to the water system that were required by State and Federal government standards, dating back to at least 2010 when there was an ice storm similar to one in 2021. Jackson requested financial assistance from the State Legislature to improve the water system around the Capitol Complex. Rather than providing Jackson with grant assistance, the Legislature would only authorize loan funds for Jackson. The loan amount was \$6 million, which was only approximately half the amount that Jackson had sought. The loan was part of the proceeds from an approximately \$200 million general obligation bond package passed during the 2010 Legislative Session. The State could have retired the \$6 million in bonds from State resources, as it did with other parts of the bond package, but did not do so. Instead, the State required Jackson to repay the \$6 million by deducting funds from sales tax rebates that would otherwise have gone to Jackson. The members of the bond commission were Jim Hood (Attorney General at the time), Haley Barbour (Governor at the time) and Tate Reeves (Treasurer at the time and current Governor). The commission initially refused to issue the bonds for the \$6 million loan; however, it eventually authorized the issuance. Jackson used the money to construct an elevated water tank and replace water lines around the Capitol and the downtown area.

I DECLARE THAT, TO THE BEST OF MY KNOWLEDGE,
THE FOREGOING IS TRUE AND CORRECT.

Executed this 26th day of September, 2022.

(b)(6) Privacy, (b)(7)(C) Enf. Privacy

EXHIBIT 6

DECLARATION OF (b)(6) Privacy, (b)(7)(C) Enf. Privacy

I, (b)(6) Privacy, (b)(7)(C) Enf. Privacy, state as follows:

1. I am over 18 years of age, and I make this declaration based upon my own personal knowledge.

2. I am (b)(6) Privacy, (b)(7)(C) old, and I have lived in Jackson off and on since (b)(6) Privacy, (b)(7)(C) I have served as an

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) I am a (b) (6), (b) (7)(C) and I used to work as (b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) I am (b) (6), (b) (7)(C) now.

3. A number of years ago, we received a statement in the mail saying that there were problems with the water, that it had lead and other contaminants, which made us skeptical about our water. From then on, we stopped drinking the water and started getting bottled water delivered, which was an extra cost to us. We primarily have the water delivered in five gallon containers that we have to set up in our house; sometimes we buy it from the store, too.

4. I believe we avoided having health problems because we switched to bottled water and stopped drinking the water from our taps.

5. Quite frequently, we're not able to use our water to shower, clean, or flush our toilets because of water pressure issues. We've been having a lot of water pressure issues recently. We try to fill up containers to have in case the pressure gets low and then keep them on hand all the time. That's a problem for us to maintain, but we need that water as a backup.

6. I thought we were used to our water issues, but they've gotten much worse recently, including in August when there was really no water.

7. The state has not fulfilled its obligations to Jackson. That's because of the racial bias that seems to come from the state of Mississippi. Our water problems today are a continuation of the segregation and racism that have persisted over the years in Mississippi. Mississippi has a long history treating its Black people this way.

8. As I understand it, a number of city administrations have asked the state for money. They've asked for money that comes from the federal government to the state, which the state then has to allocate. But the money that was available was not allocated to Jackson, even though Jackson is the state's capital city and the largest city in the state. That's really just racial bias.

9. All of this racism—with the water and all the other issues—has made me very disgusted.

I DECLARE THAT, TO THE BEST OF MY KNOWLEDGE, THE FOREGOING IS TRUE AND CORRECT.

Executed this 26th day of September, 2022.

(b)(6) Privacy, (b)(7)(C) Enf. Privacy



EXHIBIT 7

DECLARATION OF

(b)(6) Privacy, (b)(7)(C) Enf. Privacy

I, (b)(6) Privacy, (b)(7)(C) Enf. Privacy state as follows:

1. I am over 18 years of age, and I make this declaration based upon my own personal knowledge.

2. I have lived in Jackson, Mississippi continuously since (b)(6) Privacy, (b)(7)(C) Enf. Privacy Prior to that, I lived in Jackson, Mississippi from (b)(6) Privacy, (b)(7)(C) Enf. Privacy

3. I live with my (b)(6) Privacy, (b)(7)(C) Enf. Privacy (b) (6), (b) (7)(C) My (b) (6), (b) (7)(C)

4. I work as a (b) (6), (b) (7)(C) for the (b) (6), (b) (7)(C) community in Jackson, Mississippi.

5. I have experienced significant personal and financial hardship as a result of the water crisis in Jackson, Mississippi. The water outage disrupts all of my daily activities, creates significant barriers to completing everyday tasks, and has created significant financial strain.

6. Recently, because of the boil water advisory, I was forced to make frequent trips to the grocery store to purchase water. Although there were free water distribution events near me, the lines were extremely long and supply was quite limited. As a result I was forced to spend a significant amount of my income on not only purchasing water, but also on gas for increased trips to the store to purchase water. I am (b)(6) Privacy, (b)(7)(C) Enf. Privacy have difficulty carrying the water upstairs to my (b) (6), (b) (7)(C) and as a result could not purchase large quantities of bottled water at once. The boil water advisory also required me to clean and disinfect my home more than normal. This was a significant financial and physical burden.

7. The water outage was especially harmful and disruptive for my (b) (6), (b) (7)(C). Because (b) (6), (b) (7)(C) is (b) (6), (b) (7)(C) This meant that tasks (b) (6), (b) (7)(C) was

previously able to complete on [REDACTED] own, such as showering or washing [REDACTED] face, required greater assistance. Additionally, the threat of the unsanitary water causing further damage to what little

(b) (6), (b) (7)(C) both a great deal of anxiety. As [REDACTED] caregiver, I was tasked with carrying boiling water upstairs for [REDACTED] use in the bathroom and ensuring that [REDACTED] had constant access to safe water. This greatly limited my [REDACTED] independence and created additional challenges for me as [REDACTED]

8. Similarly, during the water freeze last year my [REDACTED] was subjected to increase risk and burden. I was out of town during the freeze and my [REDACTED] had to rely on neighbors to provide bottled water and even had to resort to using melted snow.

9. As a [REDACTED] I am especially concerned about the financial and emotional impact the water crisis has on the City's elderly and disabled population. Many of the [REDACTED] struggle accessing clean water during boil water advisories. Many cannot afford to purchase water and are often unable to wait in long lines to access free water. I am often able to secure two to three gallons of water for these individuals, but that typically does not last long.

10. Additionally, because of their pre-existing health conditions, [REDACTED] expressed anxiety about the increased threat the water posed to them. Because the water crisis affects both residential and commercial properties throughout the City, many of these individuals are concerned about being exposed to unsanitary water at the many facilities and restaurants they rely on for care and food.

11. The water crisis has gotten significantly worse since I moved back to Jackson in [REDACTED] and I am increasingly concerned about the impact continued crisis will have on my family and me.

I DECLARE THAT, TO THE BEST OF MY KNOWLEDGE, THE FOREGOING IS TRUE
AND CORRECT.

Executed this 27th day of September, 2022.

(b)(6) Privacy, (b)(7)(C) Enf. Privacy



EXHIBIT 8

DECLARATION OF (b)(6) Privacy, (b)(7)(C) Enf. Privacy

I, (b)(6) Privacy, (b)(7)(C) Enf. Privacy, state as follows

1. I am over 18 years of age, and I make this declaration based upon my own personal knowledge.

2. I have lived in Jackson for (b)(6) Privacy, (b)(7)(C) Enf. Privacy years, having moved here in

(b)(6) Privacy,

3. I am (b) (7)(C)

(b) (7)(C)

(b) (6), (b) (7)(C)

4. In my service with the (b) (6), (b) (7)(C), as well as a parent of (b) (6), (b) children who have attended Jackson Public Schools (“JPS”), I am acutely aware of the impact Jackson’s continuous problems with water have had on the city’s children.

5. Moreover, Jackson is a fundamentally Black city and yet, I have witnessed how Black voices are left out of policy decisions and Black residents suffer. JPS is a predominantly Black school system. Roughly 95% of JPS students are Black and the majority of schools in the city are almost entirely Black.

6. The water troubles in Jackson affect school buildings in similar ways to private residences. Inconsistent water pressure creates numerous problems for school buildings, including unflushable toilets and lack of potable drinking water. For the safety of students and to maintain an in-person learning environment, JPS is frequently required to shuffle students between school buildings to ensure they have access to running water creating disruptions for both the students at the receiving school and those who are displaced from their home school.

7. As a JPS parent of (b) (6), (b) (7)(C), and a resident of Jackson, I have experienced these issues first hand. Because my (b) (6), (b) (7)(C) children have attended JPS schools, they have also experienced the need to stay home from school on multiple occasions because a pipe had burst or there was limited water pressure at their school or throughout the school district. (b) (6), (b) (7)(C) my children have lost out on learning opportunities because of the disruptions caused by the disinvestment in Jackson's water system.

8. The Environmental Protection Agency viewed these issues first hand, in November of 2021, when the EPA Administrator visited Wilkens Elementary. On the day of his visit, the school district was forced to move students out of Wilkens because the pressure dropped leaving the school without running water.

9. In winter months these problems are particularly acute. Despite the annual nature of Jackson's winter freezes, our plumbing infrastructure is unable to withstand the weather and, inevitably, each winter the pipes freeze, thaw and then subsequently burst. Schools must close and students, once again, are left without a stable and accessible learning environment. In January of 2018, the schools were closed for multiple days in a row for this very reason. There have also been numerous instances of students coming to school, only to be sent home early due to a drop in water pressure.

10. Prior to the investment of federal funding to respond to the COVID-19 pandemic, the school district did not have the resources to provide all of its students with laptops to take home to support virtual learning when school buildings had to close. Instead, students simply lost a day of learning. While JPS was required to make-up school days, these make-up days were often on or adjacent to holidays or scheduled breaks resulting in low attendance.

11. With a virtual learning option following the onset of the COVID-19 pandemic, JPS has been able to continue to provide some virtual learning when schools have closed, but it is not optimal for learning. Virtual learning can still be disruptive and challenging in many home environments. It limits in-person socialization, particularly for younger students, and requires students to have access to technology, Wi-Fi and resources that may be hard to come by for JPS students.

12. During the heart of the pandemic, JPS facilities were closed and students attended classes virtually from March of 2020 through the end of the school year. The vast majority of students also attended classes virtually through the 2020-2021 school year. An analysis of those years reveals that learning loss occurred. Furthermore, knowing virtual learning is an imperfect substitute for in class learning, the frequent school closures caused by Jackson's water crises significantly hindered the ability of JPS students to learn and be successful.

13. JPS has a large concentration of students living in low-income households and 100% of JPS students qualify for free or reduced lunch through the Community Eligibility Provision. School closures can, then, mean that a student is not only not learning, but may also be missing an essential meal they cannot afford to get at home, despite the best efforts of the school district to make meals accessible.

14. School funding depends on enrollment. As the water system in the city has become less and less reliable, it has directly contributed to the outmigration of families with children from the city – thus adversely affecting funding for the school district.

15. The continuing water crisis has also exacerbated many other impediments to learning that some Jackson students face, including challenges around post-pandemic

mental health and stress issues, crime, and persistent poverty that threaten to leave some Jackson students further behind in their learning. Put simply, the children of Jackson, the vast majority of whom are Black, have suffered due to the underfunding and disrepair of the Jackson water system.

16. It is also taxing on parents who are unable to plan for whether or not a school will be open on any given day. Last minute school closures can mean, particularly for parents of younger elementary and middle-school children, scrambling to find childcare or someone to assist with virtual learning during work hours. Again, low-income families are the most affected as they are more likely to have less flexibility when it comes to work.

17. At our own home, we have received multiple notices from the Mississippi Department of Health (“DoH”) that there are potential problems with our water. In one instance, when our children were young, we were notified that there was potential lead leeching into our water. Because of the very direct threat this posed to our children, I had to sample our water and bring it to the Department of Health for testing. Boil water notices are common.

18. I have little doubt that the State of Mississippi’s unwillingness to invest in Jackson, a Black city, is a major, if not the primary, reason behind the continued failure of Jackson’s water infrastructure. Jackson has seen routine disinvestment by the state and, despite Jackson being the capital, state agencies are methodically moving their offices out of the city.

19. The state of Mississippi has had ways of fixing this problem. Federal dollars for infrastructure spending and other state programs could have been used to

invest in and modernize Jackson's water system. However, Jackson has been dramatically underrepresented in, not only the plans, but the bodies developing them. Not surprisingly, inadequate levels of funding have been allocated to Jackson.

20. The failure to properly fund Jackson, and so, to deny the city's residents clean, accessible water, seemingly the bare minimum needed to live, cannot be divorced from this context. As a result, Black communities in Jackson are suffering disproportionately from the systemic denial of funding by the state of Mississippi for basic water infrastructure. Black communities are being left behind.

I DECLARE THAT, TO THE BEST OF MY KNOWLEDGE, THE FOREGOING IS TRUE AND CORRECT.

Executed this 27day of September, 2022.

(b)(6) Privacy, (b)(7)(C) Enf. Privacy

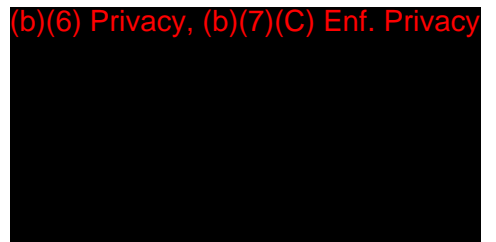


EXHIBIT 9

DECLARATION OF (b)(6) Privacy, (b)(7)(C) Enf. Privacy

I, (b)(6) Privacy, (b)(7)(C) Enf. Privacy state as follows:

1. I am over 18 years of age, and I make this declaration based upon my own personal knowledge.
2. I am a longtime resident of Jackson, a teacher in Jackson Public Schools, a parent of (b)(6), (b)(7)(C) who attends Jackson Public Schools, and the (b)(6), (b)(7)(C) (b)(6), (b)(7)(C) I have been in this position since (b)(6), (b)(7)(C) and, in this capacity, (b)(6), (b)(7)(C) (b)(6), (b)(7)(C)
3. Our water issues make me feel like we're moving three steps forward, thirty steps back in Mississippi. I grew up in (b)(6), (b)(7)(C) Mississippi, which is one of the nation's oldest Black towns. We had water problems when I was growing up. I never thought that, decades later, I would be dealing with water problems in Mississippi's capital.
4. I've lived in Jackson since (b)(6) Privacy, (b)(7)(C) In my time in Jackson, my family and I have suffered mightily from Jackson's water issues. Like most people in Jackson, we are Black, and our experience has devastated us. In this day and age, we shouldn't have to worry about something so simple and so human as water. But Jackson's water issues have been constant. We need water for everything—to cook, to clean, to brush our teeth—and yet we so often don't have water or don't have water that we can use.
5. Our lack of water affects our lives in so many ways. I live in an area that's covered by the O.B. Curtis water treatment facility. During the freeze last winter, we were without water for 17 days. Even under less extreme circumstances, we have boil water notices all the time, and we can never trust our water.

6. Every day there's a question of how much water do I have, what do we need our water for, and how much water we will need going forward. It's infuriating to have to balance these considerations around something so basic.
7. It takes a huge toll on my family's finances. I don't have the money to take my family to an island until Jackson fixes its water problems. We have to spend money we don't have on things we wouldn't need to buy if we could just drink and use our own water.
8. We have to buy water constantly—I think a case of water is currently selling from Kroger's for \$5.29, which is a lot. Because we can't use the water, and because it smells badly even when we can, I have to buy special cleaning products, like Lysol wipes, and special materials so that I can use my dishwasher and not have my dishes smell horribly.
9. We even tailor our family cooking around our water problems. When there's a boil water notice, I buy foods, like flash-frozen meats and vegetables, that I won't have to wash. Right now, I'm making a lot of barbequed chicken and washing the chicken with bottled water.
10. Last month, I also had to buy water filters just to put on my shower. Before I bought the filter, I think my skin was burned by the chemicals in our water. I have a scar on my cheek from the burn. It's been there for around a month, and it's a reminder of all the problems we have with our water.
11. The water problems at the end of August deeply affected me and my family and the (b) (6), (b) (7)(C). My (b) (6), (b) (7)(C), who's in (b) (6), (b) (7)(C), loves school, and (b) (6), (b) (7) was very upset that (b) (6), (b) (7) couldn't go to school for a week. When (b) (6), (b) (7) asked me why they had to cancel school, I had to explain to (b) (6), (b) (7) that the school wasn't able to flush the toilets.

12. Even when [REDACTED] went to school, there were problems with access to food and not having easy access to drinking water. The disruptions to [REDACTED] schooling unsettled [REDACTED] and, I think, definitely caused [REDACTED] some trauma.
13. As an educator and the (b) (6), (b) (7)(C) [REDACTED], I know that other students and teachers were also deeply harmed. Kids in our schools missed a week of school right at the start of the school year. No one could prepare for virtual learning, so it was chaos for students and teachers.
14. Even when the kids went back to school, there were still disruptions. Teachers had to take time out of their classes to help kids, and especially young kids, flush toilets.
15. I worry that the water issues will affect the educational outcomes of children, most of whom are Black, for years to come. And we know that it affects the mental health of our students and teachers.
16. We live, all of us, in a state of endless crisis because of Jackson's water problems. In August, I gave out water until 8pm one night. As I was going home, I realized that I didn't have any water at home. I had to call my [REDACTED] and someone I worked with to see if they could buy me water. They couldn't find any, and my family and I were worried that we wouldn't have any water that night. I finally got lucky and found a place where I could buy water.
17. But other people either didn't have water or had to ration it for days. Some couldn't afford to buy bottled water and had to wait and hope that someone would give it to them. In care facilities, people only received limited amounts of water.

18. The disruptions in our water cause people to lose trust in the system—when you can't trust the water, you can't trust the state to help you.

19. In 2022, my children cannot drink from the water fountain. Today, it's not explicitly because of segregation, but because the water is tainted and contaminated. But these are the effects of structural racism.

I DECLARE THAT, TO THE BEST OF MY KNOWLEDGE, THE FOREGOING IS TRUE AND CORRECT.

Executed this 26th day of September, 2022.

(b)(6) Privacy, (b)(7)(C) Enf. Privacy



EXHIBIT 10

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4**

IN THE MATTER OF:	)	Docket No. SDWA-04-2020-2301
)	
City of Jackson, Mississippi,	)	ADMINISTRATIVE COMPLIANCE
	)	ORDER ON CONSENT
Respondent.)	
	)	Proceeding pursuant to Section 1414(g) of
Public Water System, PWS ID. No. MS0250008.)	)	the Safe Drinking Water Act, 42 U.S.C.
	)	§ 300g-3(g).

I. STATUTORY AUTHORITY

1. This Administrative Compliance Order on Consent (“AOC”) is issued to the City of Jackson, Mississippi (“Respondent” or “City”) pursuant to the authority vested in the Administrator of the U.S. Environmental Protection Agency (“EPA”) by Section 1414(g) of the Safe Drinking Water Act (“SDWA”), 42 U.S.C. § 300g-3(g). The Administrator has delegated this authority to the Regional Administrator of EPA Region 4, who has, in turn, delegated this authority to the Director of the Enforcement Compliance and Assurance Division.

II. EPA’s FINDINGS OF FACT AND CONCLUSIONS OF LAW

2. Respondent is a municipality created under the laws of the State of Mississippi and is therefore a “person” as that term is defined in the SDWA, 42 U.S.C. § 300f(12); 40 C.F.R. § 141.2.

3. Respondent owns and/or operates a public water system located in the City of Jackson, Mississippi, PWS ID No. MS0250008 (“System”). The System provides water for human consumption to a population of approximately 173,514.¹

4. The System is a “public water system” within the meaning of Section 1401(4) of the SDWA, 42 U.S.C. § 300f(4); 40 C.F.R. § 141.2.

5. The System regularly serves at least 25 year-round residents and is therefore a “community water system” (“CWS”) within the meaning of Section 1401(15) of the SDWA, 42 U.S.C. § 300f(15), and 40 C.F.R. § 141.2.

¹ Until approximately October 2014, there were two separately identified public drinking water systems owned by the City. One was supplied entirely by groundwater and identified under the PWS ID No. MS0250012; the other was supplied by surface water and identified under the PWS ID No. MS0250008. In or around October 2014, the City requested the removal of the PWS ID No. MS0250012, as the City intended to stop utilizing the groundwater sources as primary sources of drinking water. At the time of the EPA’s Civil Investigation (“Investigation”), the EPA identified that the groundwater sources were still being utilized as a primary source for a portion of the distribution and requested that the PWS ID No. MS0250012 be reinstated for the groundwater portion of the system. In or around July 2020, MSDH reinstated the PWS ID No. MS0250012. This Order addresses only those violations alleged to have occurred in the surface water system, PWS ID No. MS0250008.

6. Respondent's ownership and/or operation of the System makes it a "supplier of water" within the meaning of Section 1401(5) of the SDWA, 42 U.S.C. § 300f(5), and 40 C.F.R. § 141.2, and subject to the requirements of Part B of the SDWA, 42 U.S.C. § 300g, the National Primary Drinking Water Regulations ("NPDWRs") at 40 C.F.R. Part 141, and the Mississippi Primary Drinking Water Regulations ("MPDWRs"), promulgated pursuant to the Mississippi Safe Drinking Water Act of 1997 ("MSDWA"), Miss. Code Ann. § 41-26-1 et. seq.

7. Pursuant to SDWA Section 1413, 42 U.S.C. § 300g-2, the Mississippi State Department of Health ("MSDH" or the "State") has primary responsibility for the implementation and enforcement of the public water supply program in Mississippi.

8. Requirements of, or permits issued to Respondent under, the MSDWA and its implementing regulations are "applicable requirements" pursuant to Section 1414(i)(4) of the SDWA, 42 U.S.C. § 300g-3(i)(4), and may therefore be enforced by the EPA under Section 1414(g)(1) of the SDWA, 42 U.S.C. § 300g-3(g)(1).

9. The System consists of two water treatment plants, known as the O.B. Curtis Water Treatment Plant ("O.B. Curtis WTP")² and the J.H. Fewell Water Treatment Plant ("J.H. Fewell WTP"),³ and appurtenant collection, treatment, storage, and distribution facilities.

10. The surface water sources that contribute to the System are the Ross Barnett Reservoir, which serves O. B. Curtis WTP, and the Pearl River, which serves the J. H. Fewell WTP.

11. The O.B. Curtis and J.H. Fewell WTPs employ conventional filtration with ultraviolet ("UV") systems to inactivate pathogens. The O.B. Curtis WTP also employs a membrane filtration system for a portion of the water that goes through this WTP. Finished water at the WTPs is disinfected using chloramines.

12. UV disinfection treatment is installed on each conventional individual filter effluent ("IFE") flow at the O.B. Curtis WTP and on each high service pump at the J.H. Fewell WTP to treat for viruses, including *Cryptosporidium* and *Giardia*. Pursuant to 40 C.F.R. § 141.720(d)(3)(ii), systems must treat at least 95% of the water delivered to the public during each month by UV reactors operating within validated conditions for the required UV dose.

13. The System is required to provide filtration pursuant to 40 C.F.R. §§ 141.73, 141.173, 141.719(b), and 141.720(d); and disinfection pursuant to 40 C.F.R. §§ 141.72(b) and 141.172.

14. The term "contaminant" means any physical, chemical, biological, or radiological substance or matter in water." 42 U.S.C. § 300f(6).

15. Turbidity is a measure of the cloudiness of water. It is used to indicate water quality and filtration effectiveness (such as whether disease-causing organisms are present). Higher turbidity levels are often associated with the potential for higher levels of disease-causing microorganisms.

² To the EPA's knowledge and belief, the O.B. Curtis WTP was initially constructed in or around 1992.

³ To the EPA's knowledge and belief, the J.H. Fewell WTP was initially constructed in or around 1914.

16. Lead, *E. coli*, *Cryptosporidium*, *Giardia*, haloacetic acids (HAA5), and total trihalomethanes (TTHM) are contaminants under the meaning of 42 U.S.C. § 300f(6) and are or may be present in the System.

17. On November 22, 2019, the EPA issued a Request for Information to Respondent, pursuant to Section 1445 of the SDWA, 42 U.S.C. § 300j-4, and 40 C.F.R. § 141.31, seeking information to determine Respondent's compliance with federal drinking water regulations.

18. On December 23, 2019, Respondent provided its response to the EPA's Request for Information.

19. On January 15 and 16, 2020, consistent with the requirements of Section 1445(b)(1), 42 U.S.C. § 300j-4(b)(1), the EPA notified MSDH and Respondent, respectively, of its intent to inspect the System.

20. On February 3 to 7, 2020, representatives of the EPA conducted an Investigation of the System, pursuant to its authority under Section 1445(b)(1) of the SDWA, 42 U.S.C. § 300j-4(b)(1).

21. On March 30, 2020, the EPA transmitted a copy of the Civil Investigation Report to the Respondent, which identified a number of concerns related to bacterial contamination and proper disinfection.

22. Effective April 2, 2020, the EPA issued Respondent an Emergency Administrative Order, Docket No. SDWA-04-2020-2300 ("Emergency Order"), pursuant to Section 1431 of the SDWA, 42 U.S.C. § 300i(a).

23. In the Emergency Order, the EPA found that Respondent had NPDWR violations and that conditions existed within the System that presented an imminent and substantial endangerment to the health of persons served by the System. The NPDWR violations alleged in the Emergency Order included, but were not limited to:

a. At the time of the Investigation, Respondent could not perform membrane integrity testing at O.B. Curtis WTP due to wear and breakage of the system components and compressor, in contravention of 40 C.F.R. § 141.719; and

b. NDPWRs require a system's combined filtered water at each plant be less than or equal to 0.3 NTU in at least 95% of the measurements taken each month, and the turbidity level of a system's combined filtered water at each plant must at no time exceed 1 NTU. Turbidity exceedances were reported at both the O.B. Curtis and J.H. Fewell WTPs in the January 2020 monthly operating report ("MOR"). Finished water turbidity reached 1.35 NTU at the O.B. Curtis WTP and 3.00 NTU at the J.H. Fewell WTP. Additionally, at the O.B. Curtis WTP, 93.5% of turbidity samples were equal to or less than the turbidity limit of 0.3 NTU. At the time of the Investigation, the EPA's inspectors observed that the continuous turbidity monitoring equipment at the O.B. Curtis WTP had read inaccurately for approximately three years due to a lack of calibration and maintenance, and that turbidity samples were taken during that time period at a frequency of once per shift, for a total of three times per day. Given that the turbidity monitoring equipment was not operational, the system, to maintain compliance with NPDWRs, should have

conducted grab sampling every four hours in lieu of continuous monitoring, but for no more than five working days following the nonoperation of the equipment.

24. In order to ensure that the System has appropriate treatment equipment and appropriate information to make treatment decisions, and that the water quality is properly measured for compliance with NPDWRs, the Emergency Order required Respondent to submit a Comprehensive Equipment Repair Plan (“CERP”) for the EPA’s review and approval, including a schedule of implementation, to repair and/or replace monitoring equipment and repair, replace, and/or perform maintenance on the appurtenant treatment equipment. The Emergency Order also required the Respondent to fix the dosing process for disinfection and pH control; to increase reporting and notice requirements for exceedances of turbidity requirements; provide boil water notices to the public as required under 40 C.F.R. Part 141, Subpart Q, and provide notice thereof to the EPA; develop and implement, after specific triggering events, an Alternative Water Source Plan; provide Revised Total Coliform Rule (“RTCR”) sampling data to the EPA; provide the information to be summarized in its monthly operating reports on a weekly basis to the EPA; and provide weekly updates on compliance with the Emergency Order.

25. Although Respondent developed a CERP, the EPA has not approved the CERP as of the Effective Date of this AOC because the parties have not reached mutual agreement on the schedules of implementation for the items included therein. Respondent has reported that some work, including repairs and/or replacement, has been completed or is ongoing. Respondent has not yet fully completed the tasks identified therein, including the repair, replacement and/or maintenance of much of the equipment identified as needing such work.

26. On May 11, 2020 and April 26, 2021, the EPA issued Notices of Noncompliance to Respondent detailing additional violations beyond those previously identified in the Emergency Order. The allegations contained in these Notices of Noncompliance are detailed more fully below, where such alleged noncompliance has not been fully resolved as of the Effective Date of this AOC and/or where the EPA believes additional compliance measures are required at this time to address such noncompliance.

27. Miss. Admin. Code § 15-20-72.2.2.1(5) requires that a certified Class A operator shall be onsite whenever the treatment plant for a Class A public water system treating surface water is in operation. The System is a Class A public water system because it has surface water treatment, groundwater under the direct influence of surface water, lime softening, or coagulation and filtration for the removal of constituents other than iron or manganese. See Miss. Admin. Code § 15-20-72.2.2.1(5).

A review of the City’s operating logbooks, provided to the EPA by MSDH on March 11, 2020, and records of discussions between the City, the EPA and MSDH indicate that the System is not always fully covered by a Class A certified operator. Therefore, the City is in noncompliance with the MPDWR, Miss. Admin. Code § 15-20-72.2.2.1(5), for failure to maintain certified operators to operate the facilities.

28. 40 C.F.R. § 141.719(b)(3) and Miss. Admin. Code § 15-20-72.1.7.1 require that a PWS must conduct direct integrity testing of membrane units at a frequency of not less than once per day that the membrane unit is in operation to demonstrate removal efficiencies.

During the February 2020 Investigation and upon review of the City's subsequent MORs, the EPA found that the City was unable to perform direct integrity testing of the membrane units at O.B. Curtis WTP on a number of occasions due to wear and breakage of components and/or malfunctioning equipment. Therefore, the City failed to comply with 40 C.F.R. § 141.719(b)(3) and Miss. Admin. Code § 15-20-72.1.7.1.

29. 40 C.F.R. § 141.719(b)(4) and Miss. Admin. Code § 15-20-72.1.7.1 require that a PWS conduct continuous indirect integrity monitoring on each membrane unit unless the system implements continuous direct integrity testing of membrane units in accordance with the criteria in 40 C.F.R. § 141.719 (b)(3)(i) through (v). If indirect integrity monitoring includes turbidity and if the filtrate turbidity readings are above 0.15 nephelometric units ("NTU"), the PWS must immediately perform direct integrity testing on the associated membrane unit in accordance with 40 C.F.R. § 141.719(b)(3). Pursuant to 40 C.F.R. § 141.719(b)(3), the direct integrity testing log removal value ("LRV") for the membrane units at the O.B. Curtis WTP must be greater than or equal to the control limit⁴ of 4, or else it is considered to have failed the direct integrity testing and the System must remove the membrane unit from service, conduct a direct integrity test to verify any repairs, and may return the membrane unit to service only if the direct integrity test is within the control limit. See 40 C.F.R. § 141.719(b)(3)(v).

As indicated by a review of the City's MORs, on multiple days between March 2020 and April 2021, the indirect integrity monitoring of the membrane units at the O.B. Curtis WTP showed turbidity readings greater than 0.15 NTU. Subsequent direct integrity testing, when able to be performed, showed failures of several of the membrane units due to LRVs lower than the control limit of 4. As stated in the MORs for these periods, the City did not remove these membrane units from service, as required by 40 C.F.R. § 141.719(b)(3)(v). Therefore, the City failed to comply with 40 C.F.R. §§ 141.719(b)(3)(v) and 141.719(b)(4) and Miss. Admin. Code § 15-20-72.1.7.1.

30. Pursuant to 40 C.F.R. § 141.132(b)(2) and Miss. Admin. Code § 15-20-72.1.3.6, a PWS using chlorine dioxide for disinfection or oxidation must conduct daily monitoring for chlorite.

On February 5, 2020, the EPA observed the System treating with chlorine dioxide at the J.H. Fewell WTP. However, the February 2020 MOR stated that the System did not use chlorine dioxide at the J.H. Fewell WTP on February 5, 2020, nor did the report show that the System conducted the required monitoring on that date for chlorite.⁵ Therefore, the City did not conduct daily monitoring and failed to comply with 40 C.F.R. §§ 141.132(b)(2) and Miss. Admin. Code § 15-20-72.1.3.6.

31. Pursuant to 40 C.F.R. § 141.80(c) and Miss. Admin. Code § 15-20-72.1.3.2, the lead action level is exceeded if the concentration of lead in more than 10% of tap water samples collected during any monitoring period conducted in accordance with 40 C.F.R. § 141.86 is greater than 0.015 mg/L, (i.e., if the "90th percentile" lead level is greater than 0.015 milligrams per liter ("mg/L") (or 15 parts per billion ("ppb"))). Under 40 C.F.R. § 141.80(e), any PWS exceeding the lead action level shall implement all applicable source water treatment requirements specified by the State under

⁴ Under 40 C.F.R. § 141.719(b)(3)(iv), a System must establish a control limit within the sensitivity limits of the direct integrity test that is indicative of an integral membrane unit capable of meeting the removal credit awarded by the State. This control limit is known as the minimum log removal value and is set by the primary enforcement agency for membrane treatment systems (in this matter, MSDH).

⁵ According to the State, Respondent currently has the ability to use chlorine dioxide (ClO₂) for manganese removal at both the J.H. Fewell WTP and O.B. Curtis WTP, but not for disinfection.

40 C.F.R. § 141.83. Pursuant to 40 C.F.R. § 141.83, any PWS exceeding the lead action level must complete source water monitoring and make treatment recommendations to the State within 180 days after the end of the monitoring period during which the lead action level was exceeded. The State then makes a determination regarding source water treatment, and, if necessary, the State may require the PWS to install and operate such treatment.

The System exceeded the lead action level of 0.015 mg/L for the following monitoring periods: January – June 2015; January – June 2016; and July – December 2016. On February 12, 2016, MSDH issued a compliance plan to the City to address the lead action level exceedances (“ALEs”). As a result of the June 2015 lead ALE, the City conducted an optimal corrosion control treatment (“OCCT”) study between October 2016 and April 2017 and provided the recommended treatment to MSDH on June 13, 2017. MSDH concurred with the recommended treatment and provided a deadline of May 31, 2019 to complete source water treatment installation. MSDH later extended the completion date to December 2019; yet, the City failed to install OCCT at the J.H. Fewell WTP in accordance with the State’s deadline. Therefore, the City failed to comply with 40 C.F.R. §§ 141.80(e) and 141.83 and Miss. Admin. Code § 15-20-72.1.3.2, when it failed to install OCCT and provide applicable source water treatment by the December 2019 deadline. The City subsequently conducted an OCCT study amendment in 2021 and presented its results and recommended source water treatment to MSDH in a February 2021 report. MSDH accepted the results and recommended source water treatment plan on June 4, 2021. Given that the City’s report recommended a different source water treatment than identified in its initial 2017 OCCT study, and that MSDH established new deadlines for completion of the source water treatment, the OCCT remains unaddressed at J.H. Fewell WTP as of the Effective Date of this AOC.

32. Pursuant to 40 C.F.R. § 141.82(g) and Miss. Admin. Code § 15-20-72.1.4.3, all systems optimizing corrosion control shall continue to operate and maintain OCCT, including maintaining water quality parameters (“WQPs”) at or above minimum values or within ranges designated by the State under 40 C.F.R. § 141.82(f). A water system is out of compliance with the requirements of 40 C.F.R. § 141.82(g) for a six-month period if it has excursions for any State-specified WQP on more than nine days during the period. An excursion occurs whenever the daily value for one or more of the WQPs measured at a sampling location is below the minimum value or outside the range designated by the State. PWSs are required to report any WQP sampling results to the State, pursuant to 40 C.F.R. § 141.90(a). Additionally, PWSs must provide the public notice of treatment technique requirement violations (such as WQP excursions) within 30 days of learning of the violation, pursuant to 40 C.F.R. § 141.203 and Miss. Admin. Code § 15-20-72.1.5.2.

A review of the City’s WQP sampling records indicates that the City failed to comply with the lead and copper rule (“LCR”) treatment technique requirements for the applicable pH and/or alkalinity WQPs⁶ for at least the following monitoring periods:

- January – June 2016 (144 days of excursions of WQPs);
- July – December 2016 (179 days of excursions of WQPs);
- January – June 2017 (183 days of excursions of WQPs);

⁶ In its June 4, 2021 acceptance of the OCCT study amendment recommendations, MSDH set interim WQPs for the System, effective July 1, 2021, and final WQPs, to be effective January 1, 2023. The WQPs referenced in this paragraph are the WQPs in place as of June 4, 2021.

- July – December 2017 (186 days of excursions of WQPs);
- January – June 2018 (167 days of excursions of WQPs);
- July – December 2018 (183 days of excursions of WQPs);
- January – June 2019 (89 days of excursions of WQPs);
- July – December 2019 (59 days of excursions of WQPs);
- January – June 2020 (181 days of excursions of WQPs);
- July – December 2020 (63 days of excursions of WQPs); and
- January – June 2021 (42 days of excursions, through April 28, 2021).

According to the State, the City failed to report the WQP violations to the State and did not provide public notification for the following monitoring periods: July – December 2016; January – June 2017; and July – December 2017. Therefore, the City failed to comply with 40 C.F.R. §§ 141.82(g), 141.90(a), and 141.203 and Miss. Admin. Code §§ 15-20-72.1.4.3 and 72.1.5.2 for failure to maintain optimal WQPs and provide the appropriate public notification.

33. Pursuant to 40 C.F.R. § 141.723(d) and Miss. Admin. Code § 15-20-72.1.4.1, a PWS must correct any significant deficiencies identified in an EPA- or State-conducted sanitary survey in accordance with EPA- or State-approved schedules.

On November 18, 2016, MSDH conducted a sanitary survey, during which MSDH made a finding of inadequate application of treatment chemicals and techniques. On May 12, 2017, MSDH issued a significant deficiency report citing the System for failure to achieve the target hardness and alkalinity goals [*i.e.*, WQPs], and thereafter issued a compliance plan to the System, requiring improvements to the System be completed by December 29, 2019 to bring the System into compliance. The City failed to complete the required compliance measures at the System by the December 29, 2019 deadline established by the State, and, according to the State, has still not completed these compliance measures as of the Effective Date of this AOC. Therefore, the City is in noncompliance with 40 C.F.R. § 141.723(d) and Miss. Admin. Code § 15-20-72.1.4.1.

34. Pursuant to 40 C.F.R. §§ 141.80(f) and 141.84(a) and Miss. Admin. Code § 15-20-72.1.3.2, a water system that fails to meet the lead action level in tap samples taken pursuant to 40 C.F.R. § 141.86(d)(2), after installing corrosion control and/or source water treatment (whichever sampling occurs later), shall replace lead service lines in accordance with the requirements of 40 C.F.R. § 141.84 and Miss. Admin. Code § 15-20-72.1.1.6(8).

Pursuant to 40 C.F.R. § 141.84(b), a water system shall replace annually at least seven percent (7%) of the initial number of lead service lines in its distribution system. The initial number of lead service lines is the number of lead lines in place at the time the replacement program begins. The system shall identify the initial number of lead service lines in its distribution system, including an identification of the portion(s) owned by the system, based on a materials evaluation, including the evaluation required under § 141.86(a) and legal authorities (e.g., contracts, local ordinances) regarding the portion owned by the system. The first year of lead service line replacement shall begin on the first day following the end of the monitoring period in which the action level was exceeded.

The System exceeded the lead action level of 0.015 mg/L for the following monitoring periods: January – June 2015; January – June 2016; and July – December 2016. Therefore, the City

was required to commence its lead service line replacement program in June 2015. Despite exceeding the lead action level on several occasions, the City has failed to implement a lead service line replacement program at any time from June 2015 to the present.⁷ Therefore, the City is in noncompliance with 40 C.F.R. §§ 141.80(f) and 141.84 and Miss. Admin. Code § 15-20-72.1.1.6(8).

35. Pursuant to 40 C.F.R. § 141.86(a)(1) and Miss. Admin. Code § 15-20-72.1.3.2, each water system shall complete a materials evaluation of its distribution system in order to identify a pool of targeted sampling sites that meets the requirements of this section, and which is sufficiently large to ensure that the water system can collect the number of lead and copper tap samples required in 40 C.F.R. § 141.86(c). Systems shall use the information on lead, copper and galvanized steel that it is required to collect under 40 C.F.R. § 141.42(d) when conducting a materials evaluation, including identifying the presence of certain construction materials in the distribution system.

As of the Effective Date of this AOC, Respondent has not provided EPA with a complete materials evaluation, utilizing the information specified in 40 C.F.R. § 141.86(a)(2), to identify potential lead service lines, which was required when the LCR was promulgated in 1991.

36. Pursuant to 40 C.F.R. § 141.64(b)(2) and Miss. Admin. Code 15-20-72.1.2.6, the maximum contaminant level (MCL) for total HAA5 is 60 micrograms per liter (µg/L), determined as a locational running annual average⁸ (LRAA) at each monitoring location. Systems must include the highest LRAA for HAA5 and the range of individual sample results for all monitoring locations expressed in the same units as the MCL. If more than one location exceeds the HAA5 MCL, the System must include the LRAA for all locations that exceed the MCL.

As stated in a public notice issued by the City to its consumers on March 31, 2021, as required under 40 C.F.R. § 141.629, the City's testing results from 4th Quarter 2020 and 1st Quarter 2021 show that the System exceeded the HAA5 MCL during those periods. The level of HAA5 averaged at one of the System's locations for 4th Quarter 2020 was 66 µg/L, and for 1st Quarter 2021 was 65 µg/L. Therefore, the City is in noncompliance with 40 C.F.R. § 141.64(b)(2) and Miss. Admin. Code 15-20-72.1.2.6.

37. Based on the findings above, the EPA has determined that the System has numerous SDWA violations, including violations of the NPDWRs.

III. AGREEMENT ON CONSENT

Based on the foregoing FINDINGS, and pursuant to the authority of Section 1414(g) of the SDWA, 42 U.S.C. § 300g-3(g), the EPA is issuing this AOC, to place the Respondent on an enforceable schedule to comply with 40 C.F.R. Part 141 and applicable requirements of Miss. Admin. Code. **The EPA hereby ORDERS and Respondent hereby AGREES:**

⁷ Although the City has prepared a draft Lead Service Line Replacement Program Plan for the EPA's approval, a review of the EPA's files and correspondence with the City indicates that the Plan has not been finalized, nor has it been implemented by the City to date.

⁸ The locational running annual average is the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. 40 C.F.R. § 141.2.

38. Public Notification. Upon the Effective Date of this AOC, Respondent shall carry out the public notice requirements as required by 40 C.F.R. Part 141, Subpart Q for all future violations of the NPDWRs.

39. Comprehensive Staffing Plan. Within thirty (30) days of the Effective Date of this AOC, Respondent shall provide the EPA with a Comprehensive Staffing Plan. This Plan shall include the staff's primary duty location (i.e., either O.B. Curtis or J.H. Fewell), role(s), and years of experience in that role along with including date of original certification(s). Additionally, Respondent's Plan shall identify how it will ensure that a Class A operator is onsite at all times, including any backup plans in case staff are unavailable.

40. Comprehensive Equipment Repair Plan. The Comprehensive Equipment Repair Plan is incorporated herein as Appendix A, and includes items to be addressed by Respondent. Immediately upon receipt of this AOC, Respondent shall begin implementation of the tasks described in Appendix A in accordance with the schedules of implementation identified therein, including interim milestones, maintenance schedules, and completion deadlines. If, at any time after the Effective Date of this AOC Respondent determines that revisions are required, including extension of timeframes in accordance with Paragraph 50 below, Respondent shall submit a request for revision to the EPA at least ten (10) days prior to implementing any changes explaining why revisions are required and shall not begin implementing such revisions until EPA approval is received. If the EPA determines, during the term of this AOC, that revisions are required, the EPA will notify Respondent in writing of such revisions and Respondent shall submit such revisions to the EPA within thirty (30) days of receipt of the EPA's determination and shall implement such revisions in accordance with the EPA's approval and any associated schedule. Once a task is completed, Respondent shall submit documentation demonstrating completion. Documentation may include, but is not limited to, state concurrence, a contractor work completion acknowledgement, or another document approved by EPA.

41. Asset Management Plan Development and Implementation.

a. Within sixty (60) days of the Effective Date of this AOC, Respondent shall provide a scope of work for the EPA's review and approval for development of an Asset Management Plan. The Asset Management Plan shall include detailed asset inventories (including, at minimum, age, condition, and criticality), operation and maintenance tasks, and long-range financial planning. The scope of work shall include interim milestones and timeframes for completion of the Asset Management Plan. Completion of the Asset Management Plan shall be accomplished within nine (9) months of the EPA's approval of the scope of work. The Asset Management Plan must include an evaluation of all Respondent's assets to facilitate effective and efficient system-wide operational sustainability. See the attached, "*Asset Management: A Best Practices Guide*," for guidance on this topic.⁹ The Asset Management Plan must be developed by a qualified entity, and Respondent shall include in its scope of work a description of the entity that will develop the Plan. See the attached, "*Building an Asset Management Team*,"¹⁰ for

⁹ Additional resources on Asset Management can be found at the following EPA website: <https://www.epa.gov/sustainable-water-infrastructure/asset-management-water-and-wastewater-utilities>. These resources are provided for informational purposes, and do not constitute regulatory requirements.

¹⁰ Available at <https://nepis.epa.gov/Exe/ZyPDF.cgi/P1000LTZ.PDF?Dockkey=P1000LTZ.PDF>.

guidance on this topic. Interim milestones and timeframes contained in the approved scope of work will be enforceable pursuant to this AOC.

b. The Asset Management Plan shall be submitted to EPA for review and approval in accordance with the timeframes contained in the above referenced scope of work. Upon the EPA's approval of the Asset Management Plan, the Plan shall become an enforceable requirement of this AOC. Respondent shall begin implementation of the Asset Management Plan immediately upon receipt of EPA's approval.

42. LCR Corrosion Control Treatment. Within seven (7) days the Effective Date of this AOC, Respondent shall submit to the EPA, for review and approval, a copy of the OCCT Study Amendment report. A proposed treatment plan shall be submitted as outlined in Appendix A, Item 40. Until EPA concurrence is received on the proposed treatment plan, Respondent shall make any revisions as requested by the EPA. Upon receipt of the EPA's concurrence on the proposed treatment plan, the plan will become an enforceable component of this AOC.

43. LCR Materials Evaluation and Lead Service Line Replacement.

a. Within thirty (30) days of the Effective Date of this AOC, Respondent shall submit to the EPA for review and approval a plan for development of an updated materials evaluation which complies with the requirements of 40 C.F.R. § 141.86 and Miss. Admin. Code § 15-20-72, and shall submit the completed materials evaluation within six (6) months of EPA's approval of the materials evaluation plan.

b. Within thirty (30) days of the completed materials evaluation, Respondent shall develop and provide to the EPA for review and concurrence an updated Lead Service Line Replacement Program Plan ("LSLRPP") that identifies timeframes for implementing the identified activities and addresses EPA's comments. The LSLRPP shall include how Respondent will address current inventory and future inventory; how Respondent plans to begin replacement as required by 40 C.F.R. § 141.84; and how the information gathered through the evaluation steps will be utilized to update the materials evaluation and sample siting plans, as necessary.

c. Within fifteen (15) days of receipt of the EPA's concurrence on the revised LSLRPP, Respondent shall begin implementation of the LSLRPP. This shall continue, at a minimum, until such time as Optimal Corrosion Control has been installed and is determined to be effective based on follow-up sampling.

44. Stage 2 Disinfection Byproducts Requirements.

a. Respondent shall conduct monitoring quarterly for TTHM and HAA5 in accordance with 40 C.F.R. § 141.621(a) and its state approved monitoring plan. Samples shall be analyzed in accordance with 40 C.F.R. § 141.621(b). Respondent shall calculate the LRAAs for TTHM and HAA5 using monitoring results collected, in accordance with 40 C.F.R. § 141.620(d). Specifically, Respondent must calculate compliance with the MCL based on the available data from the most recent four

quarters.

b. Within thirty (30) days of the Effective Date of this AOC, Respondent shall submit documentation that all public notice requirements specified in 40 C.F.R. Part 141, Subpart Q have been completed for the DBP MCL violations noted in this AOC. Thereafter, Respondent must continue to repeat public notice quarterly until the violations have been resolved.

c. Respondent shall submit to the EPA, in addition to routine reporting to MSDH, the results of the monitoring required pursuant to 40 C.F.R. § 141.621 by the 10th day of the month following the end of the calendar quarter within which the sample was collected in accordance with 40 C.F.R. § 141.629. Respondent shall report quarterly to the EPA until directed otherwise.

45. Reporting and Notification.

a. Effective immediately upon the Effective Date of this AOC and until further notice by the EPA, or termination of this AOC pursuant to Section IV, whichever comes first, Respondent shall submit MOR information weekly as follows:

- i. Reports must run from Sunday to Saturday each week;
- ii. Weekly reports must be submitted to the EPA by Tuesday of the following week (*e.g.*, for the monitoring timeframe of Sunday, July 5 through Saturday, July 11, the report must be submitted by Tuesday, July 14).
- iii. Respondent shall report the MOR in the formatting requested by the EPA.

b. Respondent shall continue to submit the WQP sampling data to the EPA for a period of twelve (12) months following the Effective Date of this AOC, which may be extended by the EPA if data indicates noncompliance or if submission of such data is not timely or complete at any time during this twelve (12)-month period. The data shall be reported as follows:

- i. WQP results for the entry points to the distribution system sampling shall be included with the weekly MOR submittals.
- ii. WQP results for the tap sampling shall be submitted within fifteen (15) days of the end of each month (*e.g.*, for the monitoring timeframe of July 1 through July 31, the results must be submitted by August 15, 2021).

c. Effective immediately upon the Effective Date of this AOC and until further notice by the EPA or Termination of this AOC pursuant to Section IV, whichever comes first, if and when Respondent uses chlorine dioxide for disinfection or oxidation at either J.H. Fewell WTP or O.B. Curtis WTP, Respondent shall conduct daily monitoring for chlorite on each such day. Respondent shall include chlorite

monitoring data on a weekly basis with its MOR information, as required under Paragraph 45(a) above.

d. Effective immediately upon the Effective Date of this AOC and until further notice by the EPA, or termination of this AOC pursuant to Section IV, whichever comes first, Respondent shall submit weekly updates to the EPA as follows:

i. Weekly updates shall include the Respondent's progress in complying with this AOC and identify any failures to comply with the AOC as well as any violations that occurred during the previous week.

ii. Reports must run from Sunday to Saturday each week;

iii. Weekly updates shall be submitted with the weekly MORs to the EPA by Tuesday of the following week (e.g., for the monitoring timeframe of July 1 through July 31, the results must be submitted by August 3, 2021).

iv. Weekly updates shall follow the format provided by the EPA and be submitted electronically.

e. Respondent shall send all reports, notifications, documentation and submittals required by this AOC in writing via e-mail to:

U.S. EPA, Region 4
Enforcement and Compliance Assurance Division
Attn: Amanda Driskell
Email: driskell.amanda@epa.gov

AND

U.S. EPA, Region 4
Enforcement and Compliance Assurance Division
Attn: Bryan Myers
Email: myers.bryan@epa.gov

f. All reports, notifications, documentation, and submissions required by this AOC must be signed by a duly authorized representative of the Respondent and must include the following statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the

possibility of fine and imprisonment for knowing violations.”

IV. FINAL REPORT AND TERMINATION OF AOC

46. Within thirty (30) calendar days after Respondent has fully completed and implemented the actions required by Section III (Agreement on Consent) of this AOC, including work outlined in the CERP, Respondent shall submit for the EPA’s review and approval a final report (Final Report) that includes: (a) a description of all of the actions which have been taken toward achieving compliance with this AOC; (b) an assessment of the effectiveness of such actions; and (c) an analysis of whether additional actions beyond the scope of this AOC are necessary to further comply with the SDWA and this AOC.
47. If the EPA determines, after review of the Final Report, that all the requirements of this AOC have been completed and implemented in accordance with this AOC and no further actions are necessary to comply with the SDWA, the EPA will provide notice to Respondent and this AOC shall be deemed terminated.
48. If the EPA determines, after review of the Final Report, that, despite all the requirements of this AOC having been completed and implemented in accordance with this AOC, further actions are necessary to comply with the SDWA, the NPDWRs, and the MPDWRs, the Parties agree that this AOC may be amended to reflect such necessary additional actions. Such amendment must be agreed to in writing to become effective under this AOC.
49. If the EPA determines that any requirement has not been completed and implemented in accordance with this AOC, the EPA will notify the Respondent, provide a list of deficiencies, and may require Respondent to modify its actions as appropriate in order to correct such deficiencies. If so required, Respondent shall implement the modified and approved requirement(s) and submit a modified Final Report in accordance with the EPA notice. Failure by Respondent to implement any of the approved modified requirement(s) shall be a violation of this AOC.
50. Notwithstanding the provisions above, the EPA may extend any timeframe contained in this AOC (including, but not limited to, Appendix A) upon a showing of good cause as to why such timeframe (interim or final) cannot be achieved. Such extensions of time to the tasks in Appendix A shall be in writing, but may be incorporated into a revision to Appendix A and not necessarily in a revision or amendment to this AOC.

V. GENERAL PROVISIONS

51. Nothing in this AOC shall constitute a waiver, suspension, or modification of SDWA, the MSDWA, their respective implementing regulations, or terms and conditions of any permit issued thereunder to Respondent, which remain in full force and effect.
52. Failure to comply with the requirements herein shall constitute a violation of this AOC and the SDWA, and may subject the Respondent to penalties as provided in Section

1414(g)(3) of the SDWA, 42 U.S.C. § 300g-3(g)(3), as amended by the Federal Civil Penalties Inflation Adjustment Act of 1990, as amended, and as codified by the EPA at 40 C.F.R. Part 19.

53. Respondent's compliance with this AOC does not necessarily constitute compliance with the provisions of the SDWA, 42 U.S.C. § 300f et seq.; the MSDWA, Miss. Code Ann. § 41-26-1 et. seq.; or their respective implementing regulations.
54. Any sampling done to comply with the terms of this AOC shall be done in a manner consistent with EPA approved methodologies. The EPA reserves the right to require Respondent to conduct additional sampling if the EPA determines that Respondent's sampling is not being conducted in accordance with EPA-approved methodologies.
55. This AOC addresses only those violations alleged herein. Nothing in this AOC shall be construed as relieving the Respondent of its obligation to comply with all applicable provisions of federal, state, or local law, nor shall it be construed to be a ruling on, or determination of, any issue related to any other federal, state, or local permit. Compliance with this AOC shall not be a defense to any actions subsequently commenced pursuant to federal laws and regulations administered by the EPA.
56. Issuance of this AOC shall not be deemed as prohibiting, altering, or in any way limiting the ability of the EPA to pursue any other enforcement actions available to it under law. Such actions may include, without limitation, any administrative, civil, or criminal action to seek penalties, fines, injunctive, or other appropriate relief, or to initiate an action for imminent and substantial endangerment under the SDWA or any other federal or state statute, regulation, or permit.
57. The EPA reserves all rights and remedies, legal and equitable, available to enforce any violation cited in this AOC and to enforce this AOC.
58. Nothing in this AOC is intended to nor shall be construed to operate in any way to resolve any criminal liability of Respondent, or other liability resulting from violations that were not alleged in this AOC.
59. This AOC applies to and is binding upon Respondent and its officers, directors, employees, agents, successors, and assigns.
60. Any change in the legal status of Respondent, including but not limited to any transfer of assets of real or personal property, shall not alter Respondent's responsibilities under this AOC.
61. Respondent admits to the jurisdictional allegations set forth within this AOC.
62. Respondent neither admits nor denies the factual allegations set forth within this AOC.
63. Respondent waives any and all claims for relief and otherwise available rights or remedies to judicial or administrative review which Respondent may have with respect to any issue

of fact or law set forth in this AOC, including, but not limited to any right of judicial review of the AOC under the Administrative Procedure Act, 5 U.S.C. §§ 701-706.

64. Each party shall bear its own costs and attorneys' fees in connection with the action resolved by this AOC.
65. Pursuant to Section 1414(g)(2) of the SDWA, 42 U.S.C. § 300g-3(g)(2), the EPA has conferred with and sent a copy of this AOC to the State of Mississippi.
66. Each undersigned representative of the parties to this AOC certifies that he or she is fully authorized to enter the terms and conditions of this AOC and to execute and legally bind that party to it.

VI. EFFECTIVE DATE


67. This AOC shall become effective on the date on which Respondent receives a fully executed copy of this AOC, after signature by the Director, EPA Region 4 Enforcement and Compliance Assurance Division.

VII. MULTIPLE COUNTERPARTS

68. This AOC may be executed in counterparts, each of which shall be deemed to be an original but all of which taken together shall constitute one and the same agreement.

FOR THE RESPONDENT:

6/30/2021
Date


Chokwe Antar Lumumba, Mayor
City of Jackson, Mississippi

SO ORDERED this _____ day of 7/1/21, 20____.

CAROL KEMKER
Digitally signed by CAROL KEMKER
Date: 2021.07.01 10:07:19 -04'00'

Carol L. Kemker, Director
Enforcement and Compliance Assurance Division
Region 4

APPENDIX A
Comprehensive Equipment Repair Plan (CERP) Schedule of Implementation

APPENDIX A
Comprehensive Equipment Repair Plan (CERP) Schedule of Implementation

Task#	Plant and/or Category	Task	Deadline or Timeframe
General Tasks			
1	Operator/Staffing	City will hire an Instrument Technician for O.B. Curtis	Within 3 months of order effective date.
2	Operator/Staffing	2. Provide documentation of completion or 2.A. Submit documentation of funding for an additional two (2) operators for O.B. Curtis. 2.B. City will hire 2 unlicensed operators for O.B. Curtis in FY2020-21.	2. Within 1 month of order effective date. or 2.A and 2.B Within 6 months of order effective date.
3	Operator/Staffing	Both operations new hires should be eligible for licensure and must complete testing for Class A Waterworks	Within 7 months of order effective date.
Fewell			
4	Clari-Trac	Clari-Trac System shall be functioning and operational and repairs completed for all Basins including Butterfly Valves, Actuators, Drives, and Vacuum Hoses. 4. Provide documentation of completion or 4.A. Contact Manufacturer and identify necessary work/schedule and submit Scope of Work' to EPA; 4.B. Clari-Trac system shall be fully functional and operational with all repairs completed	4. Within 1 month of order effective date. or 4.A. Within 30 days of order effective date 4.B. Within 6 months of order effective date
5	UV Reactors	UV Sensors - Functional and fully operational. 5. Provide documentation of completion or 5.A. Order parts identified on the parts list provided by the Technician report from the 1/19/2021 evaluation. Provide the Technician Report/parts list and date parts were ordered to EPA. 5.B. Return all UV Sensors to fully functional/operational status.	5. Within 1 month of order effective date. or 5.A. Within 30 days of order effective date 5.B. Within 6 months of order effective date
6	Filters	6.COJ will develop a Scope of Work* with timeframes for returning filters to fully operational and functional status. Upon EPA approval of Scope of Work/plan, the CERP will be updated to include the individual tasks and timeframes.	Within 60 days of order effective date
7	Monitoring Equip	7.A. Flow Measurement Devices - Research and assessment completed 7.B Flow Measurement Devices -will be functional and fully operational.	7.A. Within 30 days of order effective date 7.B. Within 6 months of order effective date

APPENDIX A

Comprehensive Equipment Repair Plan (CERP) Schedule of Implementation

Task#	Plant and/or Category	Task	Deadline or Timeframe
8	Monitoring Equip	8. Provide documentation of completion or 8.A. Submit a status report for all turbidimeters, to include current status (operational or not) and what repairs/replacement is needed for each item. 8.B. Return all to fully operational status.	8. Within 1 month of order effective date. or 8.A. Within 30 days of order effective date 8.B. Within 3 months of order effective date
9	Intake Structure	Pedestrian Bridge	Within 6 months of order effective date
10	Entire Plant	Corrosion Control report	Within 30 days of order effective date
Curtis			
11	Conventional - Chlorine Room	Weight Indicator - 11.A Parts ordered 11.B Functional and fully operational.	11.A. Within 30 days of order effective date 11.B. Within 90 days of order effective date
12	Conventional - Chlorine Room	HS#1 - Documentation showing functioning and operational.	Within 30 days of order effective date
13	Conventional - All Conventional Basins	Clari-Trac System shall be functioning and operational and repairs completed for all Basins including Butterfly Valves, Actuators, Drives, and Vacuum Hoses. 13.A. Contact Manufacturer and identify necessary work/schedule and submit Scope of Work to EPA*; 13.B. Clari-Trac system shall be fully functional and operational with all repairs completed	13.A. Within 30 days of order effective date 13.B. Within 7 months of order effective date
14	Conventional - Turbidimeters for Basis 1, 2, 3	14. Provide documentation of completion or 14.A. Submit a status report for all turbidimeters, to include current status (operational or not) and what repairs/replacement is needed for each item. 14.B. Return all to fully operational status.	14. Within 1 month of order effective date. or 14.A. Within 30 days of order effective date 14.B. Within 3 months of order effective date
15	Conventional - UV Filter Gallery	UV #5 - Operational and Fully functional	Within 30 days of order effective date
16	Membrane - HS#2	Chlorine analyzers - Operational and Fully functional. Provide documentation of replacement of one chlorine analyzer and installation of second chlorine analyzer	Within 1 month of order effective date.
17	Membrane - Blower Room	Blower C - 17. Provide documentation of completion or 17.A Assessment of root cause completed 17.B Submit plan to address the concerns identified in assessment. Upon EPA approval of the plan, Appendix A will be updated to include those individual tasks and timeframes	17. Within 1 month of order effective date. or 17.A. Within 30 days of order effective date 17.B. Within 60 days of order effective date
18	Conventional-Intake	Microscreens -18. Provide documentation of completion or 18.A. Submit status report for the microscreens, include current status and any needed repairs/replacement; 18.B. Complete any needed repairs/replacement	18. Within 1 month of order effective date. or 18.A. Within 30 days of order effective date 18.B. Within 60 days of order effective date
19	Conventional-Intake	60-inch sluice gate -19. Provide documentation of completion or 19.A. Submit status report, include current status and any needed repairs/replacement; 19.B. Complete any needed repairs/replacement	19. Within 1 month of order effective date. or 19.A. Within 30 days of order effective date 19.B. Within 60 days of order effective date

APPENDIX A

Comprehensive Equipment Repair Plan (CERP) Schedule of Implementation

Task#	Plant and/or Category	Task	Deadline or Timeframe
20	Conventional-Intake	72-inch sluice gate - 20. Provide documentation of completion or 20.A. Submit status report, include current status and any needed repairs/replacement; 20.B. Complete any needed repairs/replacement	20. Within 1 month of order effective date. or 20.A. Within 30 days of order effective date 20.B. Within 60 days of order effective date
21	Both - Intake	Roof Repairs/Potassium Permanganate feeder	Within 3 months of order effective date.
22	Membrane - Intake	Microscreens -22. Provide documentation of completion or 22.A. Submit status report for the microscreens, include current status and any needed repairs/replacement; 22.B. Complete any needed repairs/replacement	22. Within 1 month of order effective date. or 22.A. Within 30 days of order effective date 22.B. Within 60 days of order effective date
23	Membrane - Intake	60-inch sluice gate - 23. Provide documentation of completion or 23.A. Submit status report, include current status and any needed repairs/replacement; 23.B. Complete any needed repairs/replacement	23. Within 1 month of order effective date. or 23.A. Within 30 days of order effective date 23.B. Within 60 days of order effective date
24	Membrane - Sludge Plant Handling Facility	Gravity Thickener #1 and #2 - Functional and Fully Operational	Within 5 months of order effective date.
25	Both - Filters	Filter Rehab - Submit detailed Scope of Work*. Upon approval of the Scope of Work, the tasks will be updated to include additional milestones and final completion of this task.	Within 60 days of order effective date
26	Membrane - Trains #1-6	26.A. Submit a report on the current status and any needed repairs/replacement for each membrane train and its components including sluice gate, flocculator, centrifuge, reject valve, turbidimeter and rapid mixer. 26.B. Submit detailed Scope of Work* to address the identified concerns, including any sequencing. Upon approval of the Scope of Work, the tasks will be updated to include additional milestones and final completion of this task.	26.A. Within 30 days of order effective date 26.B. Within 60 days of order effective date
27	Membrane - Cover	Complete Membrane Basin Building Structure Project.	Within 6 months of order effective date
28	Conventional - Soda Ash System	dilution system - - Functional and Fully Operational - Provide documentation of completion or repair the dry powder level indicators	Within 30 days of order effective date
Groundwater System-Storage Tank			
29	Storage Tanks	Maddox Rd (Hwy 18) - Provide documentation that tank is fully functioning and operational.	Within 30 days of order effective date
30	Storage Tanks	TV Rd Booster Station - Submit plan for bringing back into service.	Within 6 months of order effective date

APPENDIX A
Comprehensive Equipment Repair Plan (CERP) Schedule of Implementation

Task#	Plant and/or Category	Task	Deadline or Timeframe
31	Wells	Provide a status and plan for each of the wells, include a status of each well, identify any need repairs/replacement, and propose timeframe for addressing these repairs/replacement including any interim steps. Upon EPA approval of the plan, Appendix A will be updated to include those individual tasks and timeframes for each well.	Within 60 days of order effective date
32	Well House	Well Houses - Submit Scope of Work* including proposed timeframes. Upon EPA approval of the Scope of Work, Appendix A will be updated to include those individual tasks and timeframes.	Within 60 days of order effective date
Dosing Automation			
33	Curtis	O.B. Curtis: Submit detailed Scope of Work*, that includes schedule of tasks and timeframes for completion of interim and final tasks. Upon approval of the Scope of Work, Appendix A will be amended to add additional tasks/timeframes for completion of automation.	Within 60 days of order effective date
34	Curtis	Ammonia/Chlorine Feeds: All chlorinator and ammoniator equipment and appurtenances will be fully functional with automatic, flow-pacing capabilities in service and redundancy present. Submit detailed Scope of Work*, that includes schedule of tasks and timeframes for completion of interim and final tasks. Upon approval of the Scope of Work, Appendix A will be amended to add additional tasks/timeframes for completion of automation.	Within 60 days of order effective date

APPENDIX A

Comprehensive Equipment Repair Plan (CERP) Schedule of Implementation

Task#	Plant and/or Category	Task	Deadline or Timeframe
35	Curtis	ACH (Aluminum Chlorohydrate) (coagulant): The treatment system was installed by using the same method as the Alum/lime system that was previously being used and not tweaked for the new ACH coagulant. Studying the coagulation system to determine if CO2 treatment addition will be helpful in improving the treatment system for future automation. Submit detailed Scope of Work*, that includes schedule of tasks and timeframes for completion of interim and final tasks. Upon approval of the Scope of Work, Appendix A will be amended to add additional tasks/timeframes for completion of automation.	Within 60 days of order effective date
36	Curtis	O.B. Curtis: Potassium Permanganate Feeds: flow pacing or feedback loop. Submit detailed Scope of Work*, that includes schedule of tasks and timeframes for completion of interim and final tasks. Upon approval of the Scope of Work, Appendix A will be amended to add additional tasks/timeframes for completion of automation.	Within 60 days of order effective date
37	Curtis	O.B. Curtis: Fluoride - Submit detailed Scope of Work*, that includes schedule of tasks and timeframes for completion of interim and final tasks. Upon approval of the Scope of Work, Appendix A will be amended to add additional tasks/timeframes for completion of automation.	Within 60 days of order effective date
38	Curtis	O.B. Curtis: pH metering information: Replaced/Repaired and are being calibrated as required. Information from the meters is not fed directly into the chemical feeding systems, but manually by operators. This can result in missing peaks. Submit detailed Scope of Work*, that includes schedule of tasks and timeframes for completion of interim and final tasks. Upon approval of the Scope of Work, Appendix A will be amended to add additional tasks/timeframes for completion of automation.	Within 60 days of order effective date

APPENDIX A Comprehensive Equipment Repair Plan (CERP) Schedule of Implementation			
Task#	Plant and/or Category	Task	Deadline or Timeframe
39	Curtis	O.B Curtis: Raw Water Flow Meter - Conventional plant (related to the Clari-Trac System): Not currently running automatically. Submit detailed Scope of Work*, that includes schedule of tasks and timeframes for completion of interim and final tasks. Upon approval of the Scope of Work, Appendix A will be amended to add additional tasks/timeframes for completion of automation.	Within 60 days of order effective date
40	Fewell	The dosing equipment has always been run in manual for disinfection and pH at the Fewell plant. 40.A. Submit a plan to complete research/assessment; 40.B. Based on research,submit work proposal, which should include a proposed treatment plan; 40.C. Complete work.	Task 40.A will be due one month after approval of OCCT Study Findings Plan and Task 40.B will be due two months after approval. Upon approval, Appendix A will be updated to include completion timeframe for Task40.C A proposed treatment plan shall include a scope of work, timeframes for completion of any necessary treatment modifications, and identify funding for implementation of the treatment plan.

*The Scope of Work (SOW) submitted to the EPA must contain detailed descriptions of all work necessary to successfully complete the Task listed in this AOC. The SOW must include all interim steps, including completion dates and/or timeframes to complete each interim step. In addition to completion dates/timeframes for each interim step, the SOW must also contain the deadline (date) for the completion of the entire Task. Scope of Works may be combined if tasks will all be a part of same project.

The EPA understands that the City may not be able to provide exact completion dates due to the complex nature of some Tasks included in the AOC. If the City is unable to project exact dates of completion for each interim step necessary to complete a Task, the City must, at a minimum, describe the interim steps necessary to complete each Task, along with timeframes that the City reasonably expects to be necessary for each interim step to be completed. For example, if the City has a requirement to submit and receive approval of a "Plans and Specs" document to the MSDH as an interim step, the SOW could include a statement similar to, "The City will submit "Plans and Specs" document for review and approval to the MSDH. Within two (2) weeks of MSDH approval of "Plans and Specs" document, the City will put the work out for bid."

This level of detail must be provided for each interim step necessary to complete each Task identified in the AOC. Without specific, detailed SOWs, including interim steps and completion dates or timeframes for completion, the EPA is unable to adequately review and approve the SOW proposed by the City.

EXHIBIT 11

Office of the Mayor
Chokwe A. Lumumba, Mayor



219 South President Street
Post Office Box 17
Jackson, Mississippi 39205-0017
Telephone: 601-960-1084
Facsimile: 601-960-2193

March 12, 2021

The Honorable Delbert Hosemann
Lieutenant Governor
400 High St.
Jackson, MS 39201

Dear Lt. Governor Hosemann,

Thank you for our recent discussion on providing emergency assistance for the immediate repairs and improvements needed for our water distribution system that was severely impaired as a result of the extreme weather conditions experienced last month. In my correspondence dated March 3, 2021, I requested an appropriation of \$47 million to begin critically needed capital improvements at our water plants and in our distribution system. However, I also recognize the need for a consistent source of revenue to modernize and maintain our aging water, wastewater, and drainage infrastructure if we are to prevent a crisis of this magnitude from occurring in the future.

While there is an urgent need for immediate funding, the one percent sales tax bill for water that is currently under consideration in the legislature would provide the consistent revenue stream necessary to ensure that our residents never have to endure the burden of not having clean water again. The governing authorities of the City of Jackson also found that a consistent revenue source for improving our water, drainage, and wastewater infrastructure is indeed imperative and affirmed that necessity by unanimously voting to approve a resolution in support of the proposed one percent sales tax legislation on March 5, 2021. We understand that the time for strategic efforts to ensure that our residents and businesses are not deprived of clean water again is now. Your support of this legislation is greatly appreciated. Thank you for your consideration.

Sincerely,

The Honorable Chokwe A. Lumumba
Mayor, City of Jackson

cc: Governor Tate Reeves
Speaker of the House Philip Gunn
Hinds County Delegation

EXHIBIT 12



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET ATLANTA, GEORGIA 30303-8960

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Honorable Chokwe A. Lumumba
Mayor of City of Jackson
219 South President Street
Jackson, Mississippi 39205

RE: Notice of Noncompliance Pursuant to Section 1414(a)(1)(A) of the Safe Drinking Water Act, 42 U.S.C. § 300g-3(a)(1)(A), City of Jackson Public Water System, Jackson, Mississippi, PWS ID No. MS0250008

Dear Mayor Lumumba:

The U.S. Environmental Protection Agency is responsible for assuring public water systems provide safe drinking water in accordance with the Safe Drinking Water Act (SDWA), 42 U.S.C. § 300f et. seq., and the regulations promulgated thereunder. Based on information contained in the Safe Drinking Water Information System (SDWIS), the City of Jackson Public Water System (System) has approximately 71,486 service connections, serves approximately 173,514 persons, and is owned and/or operated by the City of Jackson, Mississippi (hereinafter, the City). Pursuant to Section 1401(15) of the SDWA, 42 U.S.C. § 300f(15), it is therefore a community water system. As a community water system, the Jackson Public Water System (PWS) is subject to the requirements of the National Primary Drinking Water Regulations (NPDWR), 40 C.F.R. Part 141, and the Mississippi Primary Drinking Water Regulations (MPDWR), promulgated pursuant to the Mississippi Safe Drinking Water Act of 1997, Miss. Code Ann. § 46-21-1 et. seq.

Based on information contained in a public notice issued by the City to its consumers on March 31, 2021, as required under 40 C.F.R. § 141.629, the EPA finds that the System is in noncompliance with the SDWA, the NPDWR, and the MPDWR, as described below:¹

¹ The violations contained herein are in addition to those violations alleged in the Emergency Administrative Order, Docket No. SDWA-04-2020-2300, issued by the EPA to the City on March 27, 2020, and in the Notice of Noncompliance issued by the EPA to the City on May 11, 2020.

- Pursuant to 40 C.F.R. § 141.64(b)(2) and Miss. Admin. Code 15-20-72.1.2.6, the maximum contaminant level (MCL) for total haloacetic acids (HAA5) is 60 micrograms per liter (µg/L), determined as a locational running annual average² at each monitoring location. Systems must include the highest locational running annual average for HAA5 and the range of individual sample results for all monitoring locations expressed in the same units as the MCL. If more than one location exceeds the HAA5 MCL, the System must include the locational running annual averages for all locations that exceed the MCL. The City's testing results from 4th Quarter 2020 and 1st Quarter 2021 show that the System exceeded the HAA5 MCL during those periods. The level of HAA5 averaged at one of the System's locations for 4th Quarter 2020 was 66 µg/L, and for 1st Quarter 2021 was 65 µg/L.
- As noted in the EPA's previously-issued May 11, 2020, notice of noncompliance, the System exceeded the lead action level of 0.015 mg/L for the following monitoring periods: January – June 2015; January – June 2016; and July – December 2016. On February 12, 2016, the Mississippi State Department of Health (MSDH)³ issued a compliance plan to the City to address the lead action level exceedances (ALEs). As a result of the June 2015 lead ALE, the City conducted an optimal corrosion control treatment (OCCT) study between October 2016 and April 2017 and provided the recommended treatment to MSDH on June 13, 2017. MSDH concurred with the recommended treatment and provided a deadline of May 31, 2019 to complete source water treatment installation. Although MSDH later extended the completion date to December 2019, this deadline has remained unmet throughout 2020 and into 2021, and the City has failed to install OCCT at the J.H. Fewell WTP as of the date of this Notice. Therefore, the City is in noncompliance with 40 C.F.R. §§ 141.80(e) and 141.83 and Miss. Code Ann. § 15-20-72.1.3.2, for failure to install OCCT and provide applicable source water treatment.

Consistent with Section 1414(a)(1)(A) of the SDWA, 42 U.S.C § 300g-3(a)(1)(A), the EPA is hereby notifying the City of such noncompliance, and the EPA remains committed to working with and providing technical assistance to the City, as appropriate, in order to bring the System into compliance. This Notice shall not be construed as a final agency action subject to judicial review under Section 1414(g) of the SDWA, 42 U.S.C. § 300g-3(g).

Therefore, within ten (10) calendar days of receipt of this Notice of Noncompliance, the City must contact this office to arrange a meeting to show cause why the EPA should not initiate legal proceedings against the City for these violations. In lieu of appearing in the EPA's offices for this meeting, a telephone conference may be scheduled. The City should be prepared to provide all relevant information with documentation pertaining to the above violations. The EPA's legal counsel may also be present at this meeting. Accordingly, the City has the right to have its legal counsel present.

To arrange the particulars of this meeting or to arrange for a telephone conference, please contact Amanda Driskell at (404) 562-9735 or driskell.amanda@epa.gov or Bryan Myers at 404-562-9603 or myers.bryan@epa.gov. If the City fails to attend the scheduled meeting/telephone conference or to

² The locational running annual average is the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. 40 C.F.R. § 141.2.

³ The MSDH is the entity in the State of Mississippi with primary enforcement authority over the SDWA, pursuant to SDWA Section 1413, 42 U.S.C. § 300g-2.

contact Ms. Driskell or Mr. Myers prior to the meeting/conference date, the EPA may proceed with formal enforcement against the City without further notice.

As the EPA has previously informed the City, the City may, if it so desires, assert a confidential business information (CBI) claim covering any or all information furnished to the EPA in response to this letter. Further details on how to make a business confidentiality claim are included in Enclosure A.

If you have any questions regarding this matter, please contact Ms. Driskell or Mr. Myers at the phone numbers or emails listed above. For legal inquiries, please have your attorneys contact Suzanne K. Armor, Associate Regional Counsel, at (404) 562-9701 or armor.suzanne@epa.gov.

Sincerely,

CAROL KEMKER

Digitally signed by CAROL
KEMKER
Date: 2021.04.27 18:00:06 -04'00'

Carol L. Kemker
Director
Enforcement and Compliance Assurance Division

Enclosure

cc: Dr. Charles Williams, City of Jackson Department of Public Works
Lester Herrington, Office of Environmental Health, MSDH

ENCLOSURE A

RIGHT TO ASSERT BUSINESS CONFIDENTIALITY CLAIMS (40 C.F.R. Part 2)

Except for information which deals with the existence, absence, or level of contaminants in drinking water, you may, if you desire, assert a business confidentiality claim as to any or all of the information that the EPA is requesting from you. Applicable EPA regulations relating to business confidentiality claims are at 40 C.F.R. Part 2 and 40 CFR § 2.304(e).

If you assert such a claim for the requested information, the EPA will only disclose the information to the extent and under the procedures set out in the cited regulations. If no business confidentiality claim accompanies the information, the EPA may make the information available to the public without any further notice to you.

40 C.F.R. § 2.203(b). **Method and time of asserting business confidentiality claim.** A business which is submitting information to the EPA may assert a business confidentiality claim covering the information by placing on (or attaching to) the information, at the time it is submitted to the EPA, a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as “trade secret,” “proprietary,” or “company confidential.” Allegedly confidential portions of otherwise non-confidential documents should be clearly identified by the business and may be submitted separately to facilitate identification and handling by the EPA. If the business desires confidential treatment only until a certain date or until the occurrence of a certain event, the notice should so state.

EXHIBIT 13



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

MAR 27 2020

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Honorable Chokwe A. Lumumba
Mayor of City of Jackson
219 South President Street
Jackson, Mississippi 39205

Re: Emergency Administrative Order under SDWA Section 1431, 42 U.S.C. § 300i
Public Water System: City of Jackson Public Water System
PWS ID Number: MS0250008
Docket No.: SDWA-SDWA-04-2020-2300

Dear Mayor Lumumba:

Enclosed is an Emergency Administrative Order (Order) issued by the U.S. Environmental Protection Agency to the City of Jackson, Mississippi (Respondent), as the owner/operator of the City of Jackson Public Water System (System), pursuant to section 1431 of the Safe Drinking Water Act (SDWA), 42 U.S.C. § 300i.

Based on observations made by the EPA during its inspection conducted the week of February 3, 2020, and review of the documents provided by Respondent in response to the EPA's request for information issued pursuant to its authority under section 1445 of the SDWA, 42 U.S.C. § 300j-4, the EPA has determined that conditions exist at the System that present an imminent and substantial endangerment to the persons served by the System. Based on evidence of turbidity exceedances, disinfection treatment concerns, and/or the condition of the distribution system, the System has the potential to have the presence of *E. Coli*, *Cryptosporidium*, or *Giardia* in the drinking water being served to its customers. Therefore, pursuant to section 1431 of the SDWA, 42 U.S.C. § 300i, the EPA is authorized to take actions necessary to protect human health. The Order and its requirements are necessary to ensure adequate protection of public health.

The enclosed Order sets forth the actions that must be taken to ensure that the people served by the System are provided with safe drinking water. The Order requires the System to, among other things: (1) develop and implement a plan to address all monitoring equipment and appurtenant treatment equipment repairs and/or replacements; (2) address dosing processes for disinfection and pH control; (3) develop and implement a plan to provide alternative drinking water when specific triggers are met; and (4) take additional total coliform bacteria samples under prescribed conditions.

The Order constitutes a final agency action and under Section 1448(a) of the SDWA, 42 U.S.C. § 300j-7(a) you may seek federal judicial review. If you have any questions or wish to discuss this Order, please contact Amanda Driskell at (404) 562-9735 or Driskell.Amanda@epa.gov. For legal inquiries,

please have your attorneys contact Suzanne Armor, Associate Regional Counsel, at (404) 562-9701 or Armor.Suzanne@epa.gov. Thank you for your attention to this matter.

Sincerely,



Carol L. Kemker

Director

Enforcement and Compliance Assurance Division

Enclosure

cc: Robert K Miller, Director, City of Jackson Department of Public Works
Lester Herrington, Director of Office of Environmental Health,
Mississippi State Department of Health

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4**

IN THE MATTER OF:	)	Docket No. SDWA-04-2020-2300
)	
City of Jackson, Mississippi,	)	EMERGENCY ADMINISTRATIVE
	)	ORDER
Respondent.)	
)	
Public Water System, PWS ID. No. MS0250008.	)	Proceeding pursuant to Section 1431(a)
	)	of the Safe Drinking Water Act,
	)	42 U.S.C. § 300i(a).

I. AUTHORITY

1. This Emergency Administrative Order (“Order”) is issued to the City of Jackson, Mississippi (“Respondent”) pursuant to the authority vested in the Administrator of the U.S. Environmental Protection Agency Section 1431(a) of the Safe Drinking Water Act (“SDWA”), 42 U.S.C. § 300i(a). The Administrator has delegated this authority to the Regional Administrator of the EPA Region 4, who has, in turn, delegated this authority to the Director of the Enforcement Compliance and Assurance Division.
2. The EPA has jurisdiction to issue emergency orders pursuant to Section 1431 of the SDWA, 42 U.S.C. § 300i.

II. FINDINGS OF FACT AND CONCLUSIONS OF LAW

General Findings

3. Respondent is a municipality created under the laws of the State of Mississippi and is therefore a “person” as that term is defined in the SDWA. 42 U.S.C. § 300f(12); 40 C.F.R. § 141.2.
4. Respondent owns and/or operates a public water system located in the City of Jackson, Mississippi, PWS ID No. MS0250008 (“System”). The System provides water for human consumption to a population of approximately 173,514.
5. The System is a “public water system” within the meaning of Section 1401(4) of the SDWA, 42 U.S.C. § 300f(4); 40 C.F.R. § 141.2.
6. The System regularly serves at least 25 year-round residents and is therefore a “community water system” (“CWS”) within the meaning of Section 1401(15) of the SDWA, 42 U.S.C. § 300f(15), and 40 C.F.R. § 141.2.
7. Respondent’s ownership and/or operation of the System makes it a “supplier of water” within the meaning of Section 1401(5) of the SDWA, 42 U.S.C. § 300f(5), and 40 C.F.R. § 141.2, and subject to the requirements of Part B of the SDWA, 42 U.S.C. § 300g, and the National Primary Drinking Water Regulations (“NPDWRs”) at 40 C.F.R. § 141.

8. Pursuant to SDWA Section 1413, 42 U.S.C. § 300g-2, the Mississippi State Department of Health (“MSDH”) has primary responsibility for the implementation and enforcement of the public water supply program in Mississippi.
9. The System consists of two water treatment plants, known as the O.B. Curtis Water Treatment Plant (“O.B. Curtis WTP”)¹ and the J.H. Fewell Water Treatment Plant (“J.H. Fewell WTP”),² a number of groundwater wells,³ and appurtenant collection, treatment, storage, and distribution facilities.⁴
10. Portions of the System can be supplied by both ground and surface water sources, while others are served only by surface water sources. The surface water sources are the Ross Barnett Reservoir and the Pearl River. The ground water source is the Sparta Aquifer.
11. The O.B. Curtis and J.H. Fewell WTPs, both of which treat the surface water portions of the System, employ conventional filtration with ultraviolet (“UV”) systems to inactivate pathogens. Finished water at the WTPs is disinfected using chloramines.
12. UV disinfection treatment is installed on each individual filter effluent (“IFE”) flow at both the O.B. Curtis and J.H. Fewell WTPs to treat for viruses, including *Cryptosporidium* and *Giardia*.
13. Respondent’s PWS is required to provide filtration pursuant to 40 C.F.R. §§ 141.73 and 141.173, and disinfection pursuant to 40 C.F.R. §§ 141.72(b) and 141.172.
14. Ground water from the wells is treated at the point of withdrawal using gaseous chlorine.
15. The term “contaminant” means any physical, chemical, biological, or radiological substance or matter in water.” 42 U.S.C. § 300f(6).
16. Turbidity is a measure of the cloudiness of water. It is used to indicate water quality and filtration effectiveness (such as whether disease-causing organisms are present). Higher turbidity levels are often associated with higher levels of disease-causing microorganisms.
17. *E. coli*, *Cryptosporidium*, and *Giardia* are contaminants under the meaning of 42 U.S.C. § 300f(6), and are or may be present in the System.
18. On November 22, 2019, the EPA issued a Request for Information to Respondent, pursuant to Section 1445 of the SDWA, 42 U.S.C. § 300j-4, and 40 C.F.R. § 141.31, seeking information to determine Respondent’s compliance with federal drinking water regulations.
19. On December 23, 2019, Respondent provided its response to the EPA’s Request for Information.

¹ To the EPA’s knowledge and belief, the O.B. Curtis WTP was initially constructed in or around 1992.

² To the EPA’s knowledge and belief, the J.H. Fewell WTP was initially constructed in or around 1914.

³ Respondent maintains at least six active groundwater wells (T.V. Road Well, Willo-O-Wood Well, Wiggins Road Well, Siwell Road Well, Highway 18 Well, and Maddox Road Well), along with three inactive groundwater wells (Forest Hill Road Well, Rainey Road Well, and Presidential Hill Well).

⁴ Until approximately October 2014, there were two separately identified public drinking water systems owned by the City of Jackson, Mississippi. One was supplied entirely by groundwater and identified under the PWS ID No. MS0250012; the other was supplied by surface water and identified under the PWS ID No. MS0250008.

20. On January 15 and 16, 2020, consistent with the requirements of Section 1445(b)(1), 42 U.S.C. § 300j-4(b)(1), the EPA notified MSDH and Respondent, respectively, of its intent to inspect the PWS.
21. On February 3 to 7, 2020, representatives of the EPA conducted an inspection of the PWS, pursuant to its authority under Section 1445(b)(1) of the SDWA, 42 U.S.C. § 300j-4(b)(1).

Bacterial Contamination and Proper Disinfection

22. During the inspection, the EPA identified the following preliminary concerns related to bacterial contamination and proper disinfection:
 - a. The necessary chemical dosing of coagulant to address turbidity is determined by the streaming current detectors (“SCDs”); however, Respondent’s SCDs were not properly calibrated at either the O.B. Curtis or J.H. Fewell WTPs, thus failing to provide accurate dosing for proper treatment of drinking water;
 - b. Continuous monitoring equipment at the O.B. Curtis WTP has not been repaired or calibrated for approximately three years since the instrument technician position was vacated. This equipment includes pH meters, flow measurement devices, turbidimeters, and the SCDs. Comparisons of operator laboratory bench sheet results indicated that the readouts from the continuous pH meters are off by up to 2 units in some instances. It was indicated on the monthly operating reports submitted in response to the EPA’s November 22, 2019 Request for Information, that this equipment was used as the basis for the values reported for compliance.
 - c. Jar tests are commonly used in the industry as “bench-scale” simulations of full-scale coagulation/flocculation/sedimentation water treatment processes. Respondent does not follow the industry standard of conducting regular jar tests at both the O.B. Curtis and J.H. Fewell WTPs. Because the SCDs are used as the basis for those coagulant dosing decisions without having been calibrated, the lack of jar testing is an additional indicator in evaluating the ability of the WTPs to deliver safe drinking water to the System’s users.
 - d. Respondent conducts membrane cleaning cycles without the use of automatic monitoring equipment for pH and chlorine levels. Excess chlorine levels can damage and reduce membrane efficiency. In addition, membrane cleaning is partially dependent on pH, requiring either higher or lower pH cleaning regimes based on the foulants present. This automatic monitoring equipment has been nonfunctional for several years.
 - e. Respondent cannot currently perform membrane integrity testing at O.B. Curtis WTP due to wear and breakage of the system components and compressor. This is concerning due to the inability of the Respondent to evaluate the membrane filters’ mechanical integrity during times of turbidity exceedance.
 - f. Respondent has failed to perform filter maintenance at O.B. Curtis WTP and J.H. Fewell. Considering the recent turbidity exceedances, it is crucial that Respondent maintain the System filters to perform in optimal condition for protection of human health.
 - g. NDPWRs require a system's combined filtered water at each plant be less than or equal to 0.3 NTU in at least 95% of the measurements taken each month, and the turbidity level of a

system's combined filtered water at each plant must at no time exceed 1 NTU. Turbidity exceedances were reported at both the O.B. Curtis and J.H. Fewell WTPs in the January 2020 monthly operating report ("MOR"). Finished water turbidity reached 1.35 NTU at the O.B. Curtis WTP and 3.00 NTU at the J.H. Fewell WTP. Additionally, at the O.B. Curtis WTP, 93.5% of turbidity samples were equal to or less than the turbidity limit of 0.3 NTU. The EPA's inspectors observed that the continuous turbidity monitoring equipment at the O.B. Curtis WTP has read inaccurately for approximately three years due to a lack of calibration and maintenance, and that turbidity samples were taken during this time period at a frequency of once per shift, for a total of three times per day. Given that the turbidity monitoring equipment was not operational, the system, to maintain compliance with NDPRWs, should have conducted grab sampling every four hours in lieu of continuous monitoring, but for no more than five working days following the nonoperation of the equipment.

h. UV disinfection devices were found to be offline for significant periods of time at both the O.B. Curtis and J.H. Fewell WTPs. UV disinfection devices are to be operated continuously. In its January 2020 MOR, Respondent reported the following:

i. At the J.H. Fewell WTP:

- UV Reactor 1 was offline for the entire month of January 2020 (and had been offline since October 16, 2019);
- UV Reactor 2 was offline for 15 of 31 days;
- UV Reactor 3 was offline for 17 of 31 days; and
- UV Reactor 4 was offline for 17 of 31 days.

ii. At the O.B. Curtis WTP:

- UV Reactor 1 was offline for two of 31 days;
- UV Reactor 2 was offline for four of 31 days;
- UV Reactor 3 was offline for one of 31 days;
- UV Reactor 4 was offline for three of 31 days; and
- UV Reactor 5 was offline for 10 of 31 days.

23. MSDH provided the EPA with a list of all Boil Water Notices ("BWNs") issued between January 2, 2016 and February 1, 2020, to provide notice to the public of the potential to have serious adverse effects on human health as a result of short-term exposure pursuant to 40 C.F.R. § 141.202. The majority of the BWNs issued were due to loss of pressure from leaks and/or line breaks. Low-pressure and loss of pressure in a drinking water distribution system may cause a net movement of water from outside the pipe to the inside through cracks, breaks, or joints in the distribution system. Crack, breaks and joints are common in all water systems. Backsiphonage occurs when pressure is lost in pipes creating a negative pressure and a partial vacuum that pulls water from a contaminated source outside the pipe into the treated, potable water inside the pipe. This creates a suitable environment for bacteriological contamination and other disease-causing organisms, including *E. coli*, to enter the water distribution system downstream of the WTPs, which is then delivered to users.

24. High levels of turbidity increase the likelihood that drinking water may contain disease-causing organisms, such as *Cryptosporidium*, *Giardia*, *Legionella*, and *E. coli* because particles of turbidity provide shelter for microbes and reduce the microbes' exposure to disinfectants. If particulate material is not removed, a high turbidity event can provide shelter for and promote regrowth of pathogens in the water, leading to an outbreak of waterborne diseases.
25. Pathogens, such as *Giardia*, *Cryptosporidium*, and *Legionella*, are often found in water. If consumed, these pathogens can cause gastrointestinal illness (e.g., diarrhea, vomiting, cramps) and other health problems. These illnesses may be severe and sometimes fatal for people with weakened immune systems. *Cryptosporidium* is a significant concern in drinking water because it is resistant to chlorine and other disinfectants.
26. *E. coli* are bacteria, that when present, indicate the water may have been contaminated with human and/or animal wastes. Human and/or animal wastes may contain pathogens that can cause short-term health impacts, such as diarrhea, cramps, nausea, headaches, or other symptoms. Pathogens may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems.

MSDH Actions and the EPA's Coordination with MSDH

27. MSDH has pursued informal enforcement actions against Respondent for Lead and Copper Rule ("LCR") treatment technique violations and Long-Term Enhanced Surface Water Treatment Rule violations due to turbidity exceedances. Additionally, MSDH issued a compliance plan to Respondent on February 12, 2016, to address the LCR violations that occurred starting in June 2015. However, these actions have not been effective in adequately protecting the health of the System's users with respect to the findings above.
28. EPA consulted with the City of Jackson and MSDH, to the extent practicable in light of the imminent endangerment, to confirm the correctness of the information on which this Order is based and to ascertain the action which such authorities were or would be taking.
29. Based on the findings above, the EPA has determined that the System has numerous SDWA violations, including violations of the NPDWRs.
30. Based on the findings above, and despite actions taken by MSDH, the local authorities have not undertaken all actions necessary to protect the public health and conditions exist at the System that may present an imminent and substantial endangerment to the health of persons served by the System. On February 28, 2020, MSDH submitted a written request for the EPA to assist with addressing the System's SDWA noncompliance. Therefore, this Order is necessary to protect human health.
31. The EPA has therefore determined that the actions specified in this Order are necessary to protect the health of persons.

III. ORDER

Based on the foregoing findings and conclusions, and pursuant to Section 1431 of the Act, 42 U.S.C. § 300i, it is ordered:

Intent to Comply

32. Within 72 hours of receipt of this Order, Respondent must notify the EPA in writing of its intent to comply with the terms of this Order. To satisfy this requirement, Respondent shall email the EPA point of contact identified below in Paragraph 44.

Public Notification

33. Effective immediately upon the Effective Date of this Order, Respondent shall carry out the public notice requirements as required by 40 C.F.R. Part 141, Subpart Q for all future violations of NPDWRs. Additionally, Respondent must treat any exceedances of maximum allowable turbidity levels and breaks in water lines or other low pressure or loss of pressure events likely to cause contamination in the System's distribution system as requiring Tier 1 public notification as required by 40 C.F.R. § 141.202 until notified by the EPA that this is no longer necessary.

Treatment and Distribution System Management

34. Notwithstanding the requirements of this Order, Respondent shall continue to implement all applicable monitoring and reporting requirements of the SDWA and NPDWRs in accordance with 40 C.F.R. Part 141.
35. Dosing Process Repair. Within one week of the Effective Date of this Order, Respondent shall fix dosing process for disinfection and pH control.
36. Repair and/or Replacement of Equipment.
- a. Within one week of the Effective Date of this Order, Respondent shall provide to the EPA and MSDH a status of all monitoring equipment and appurtenant treatment equipment (including, but not limited to, pH meters, flow measurement devices, turbidimeters, SCDs, chlorine analyzers, raw water screens, UV reactors, automatic sludge removal system, membrane filtration treatment train flocculator motors, membrane integrity testing system, and filters). This must include, at a minimum, descriptions of the conditions of the equipment, identify in which facility this equipment is located, any needed repairs, and status of calibration.
 - b. Within 30 days of the Effective Date of this Order, Respondent shall submit a comprehensive plan, including a schedule of implementation, for the EPA's review and approval, to repair and/or replace monitoring equipment and repair, replace, and/or perform maintenance on the appurtenant treatment equipment to ensure the System has the appropriate treatment equipment and appropriate information to make treatment decisions, and that the water quality is properly measured for compliance with the NPDWRs. All future MORs and weekly data, as required pursuant to Paragraph 43(43.a), shall include the date of last calibration and any repairs and/or replacement of monitoring equipment done since the last report was provided, until further notice by the EPA.

- c. Until such time as the monitoring equipment has been repaired and/or replaced and properly maintained, Respondent shall conduct monitoring by collecting grab samples every four hours in lieu of the continuous monitoring. For any instance where grab sampling is conducted in lieu of the required continuous monitoring, Respondent shall identify this deviation in the weekly MORs provided in accordance with Paragraph 43(43.a) of this Order.

37. CFE Turbidity Exceedance Events.

- a. In the event of CFE turbidity measurements exceeding 1.0 NTU, Respondent shall implement the following:
 - i. Comply with all requirements of NPDWRs, including 40 C.F.R. §§ 141.170 – 141.175.
 - ii. Notify the EPA and MSDH within 24 hours. If cause of the exceedance is known, include this information with notice. However, do not hold or delay the notification in instances where the cause of the exceedance is not known.
 - iii. Consult with MSDH on the exceedance and the appropriate BWN.
 - iv. Respondent shall issue a Tier 1 public notice as required by 40 C.F.R. § 141.202.
 - v. Within 24 hours after the CFE turbidity is less than 0.3 NTU, Respondent shall collect consecutive daily (one sample per calendar day) special purpose samples (bacteriological and microbial) (defined in 40 C.F.R. § 141.21(a)(6)) from the entry point to the distribution system of the treatment plant that had the turbidity exceedance, as well as any other distribution sampling location deemed necessary as identified by MSDH. Respondent shall ensure that each sample is analyzed for total coliform, *E. coli* (if sample is total coliform positive), and chlorine residual.
 - vi. Provide the EPA with chlorine residual results as measured at the entry point to the System and in the System's distribution for 10 calendar days preceding and following the event.
- b. In the event of CFE turbidity measurements exceeding 2.0 NTU, Respondent shall implement the following:
 - i. Comply with all requirements of NPDWRs, including 40 C.F.R. §§ 141.170 – 141.175.
 - ii. Immediately issue an appropriate BWN, provide notice and consult with MSDH within 24 hours, and provide notice to the EPA within 24 hours.
 - iii. Respondent shall issue a Tier 1 public notice as required by 40 C.F.R. § 141.202.
 - iv. Within 24 hours after the CFE turbidity is less than 0.3 NTU, the System shall collect consecutive daily (one sample per calendar day) special purpose samples (bacteriological and microbial) (defined in 40 C.F.R. § 141.21(a)(6)) from the entry point to the distribution system of the treatment plant that had the turbidity

exceedance as well as any other distribution sampling location deemed necessary, as identified by MSDH. Respondent shall ensure that each sample is analyzed for total coliform, *E. coli* (if sample is total coliform positive), and chlorine residual.

- v. Provide the EPA with chlorine residual results as measured at the entry point to the System and in the System's distribution for 10 calendar days preceding and following the event.
- vi. Respondent shall provide the EPA and MSDH a self-assessment evaluation of CFE and IFE to include: (1) assessment of filter performance; (2) development of a filter profile; (3) identification and prioritization of factors limiting filter performance; and (4) corrective action plan to address the issue.

38. Low Pressure/Loss of Pressure Events. In the future event that Respondent experiences breaks in water lines or other low pressure or loss of pressure events likely to cause contamination in the System's distribution system, Respondent will take the following actions:

- a. Respondent shall consult with MSDH within 24 hours to determine if a BWN is required and provide notification to the EPA within 24 hours.
- b. Respondent shall issue a Tier 1 public notice as required by 40 C.F.R. § 141.202.
- c. Respondent shall immediately repair the line break or cause of the low pressure/loss of pressure. When satisfied that system pressure will be maintained and there is adequate chlorine residual, Respondent shall begin sampling from the affected area as described below. MSDH typically recommends a free chlorine residual of 0.5 mg/l at the ends of your distribution system.
- d. Within 24 hours after making repair(s) to the water line(s) as required above, Respondent shall begin collecting special purpose samples (bacteriological and microbial) (defined in 40 C.F.R. § 141.21(a)(6)) from the System's distribution system. The chart, in Attachment I to this Order, lists the number of samples required based on the number of customers affected. If the entire system is placed on BWN, samples should be collected from sites representing the entire water system. Respondent shall ensure that each sample is analyzed for total coliform, *E.coli* (if the sample is total coliform positive), and chlorine residual. Respondent shall continue sampling until results from two consecutive rounds are total coliform negative.

39. Alternative Water Source Plan Development and Implementation.

- a. Within 14 days of the Effective Date of this Order, Respondent shall develop, and submit to the EPA for review and approval, an Alternative Water Source Plan ("AWSP"). In the AWSP, Respondent shall detail how and where it will provide at least one gallon of potable water per day, per person to every person served by the System. This allotment of alternative water must be made available at no cost to every person served by the System, as needed for drinking, cooking, maintaining oral hygiene, and dish washing. The AWSP will also outline how Respondent will inform every person served by the System of when and how an alternative water source is made available. As part of its AWSP, Respondent may opt to provide an alternate water supply that is: (1) provided by a licensed water distributor; (2) purchased bottle water; or (3) provided by another public water system that meets the requirements of

the NPDWRs. *Note:* If the AWSP trigger is localized to a specific portion of the distribution system and the entire system is not impacted, Respondent may opt to only serve alternative water to the portion of the population impacted. In order to consider this approach, the AWSP must include a detailed map of the System.

- b. The alternative source of water provided shall meet all applicable SDWA requirements at 40 C.F.R. § 141. If bottled water will be used by Respondent as an alternative water in accordance with this Order, Respondent must ensure that the bottled water is certified by the International Bottled Water Association or National Sanitation Foundation International.
- c. AWSP Implementation Triggers.
 - i. If, based upon Respondent's Revised Total Coliform Rule ("RTCR") sampling data collected in accordance with 40 C.F.R. § 141.857 and as outlined in Paragraph 41 below, the PWS exceeds 5.0% total coliform-positive samples in any monthly period during the term of this Order, Respondent shall comply with the "Level 1" assessment requirements of the RTCR at 40 C.F.R. § 141.859(b). In addition, Respondent shall begin implementation of the AWSP within 24 hours of receiving such sampling results. Respondent shall continue implementing the AWSP until the EPA provides written notification to Respondent that AWSP implementation is no longer required; or
 - ii. Within 24 hours of Respondent's collection of daily special purpose samples required under Paragraphs 37 and 38 above, Respondent shall begin implementation of the AWSP. Respondent shall continue implementing the AWSP until all daily special purpose sample results are total coliform negative. *Note:* The AWSP may consider, in certain situations, that only a portion of the population is impacted by the triggering event and therefore alternative water only needs to be provided to those impacted. See requirements under Paragraph 39(a) above.

Notifications and Reporting

40. Within 72 hours of the Effective Date of this Order, Respondent shall provide the February 2020 MORs, including the IFE data for all conventional filters at both the O.B. Curtis and J.H. Fewell WTPs during this timeframe.

41. Sample Siting Plan.

- a. Within one week of the Effective Date of this Order, Respondent shall review its current Sample Siting Plan developed pursuant to 40 C.F.R. § 141.853, to ensure consistency with the RTCR, at 40 C.F.R. Part 141, subpart Y, and simultaneously provide a copy of the current Sample Siting Plan to the EPA for the EPA's concurrent review.
- b. If the current Sample Siting Plan does not include a minimum of 120 sampling locations per month as required under 40 C.F.R. § 141.857(b), Respondent shall update the Sample Siting Plan to achieve the required minimum monitoring frequency for the monthly monitoring period after the Effective Date of this Order.

- c. Within 10 business days of the Effective Date of this Order, Respondent shall provide to the EPA, RTCR sampling data for the months of January 2020 and February 2020. If the Respondent has not yet conducted the March 2020 sampling, this sampling shall be conducted within one week of the Effective Date of this Order and the results submitted within 10 days of receipt of the sampling analysis. If the March 2020 sampling has been completed prior to the Effective Date of this Order, Respondent shall submit these results along with the January 2020 and February 2020 results. All RTCR sampling data shall include the chlorine residual data for the RTCR locations.
 - d. The Respondent shall continue to submit the RTCR sampling data to the EPA until directed otherwise. This data shall include all chlorine residual data for all RTCR sampling locations.
42. Respondent must notify the EPA within 24 hours after learning of a violation of this Order or any NPDWRs, or of a situation with the potential to have serious adverse effects on human health as a result of short-term exposure to contaminants.
43. Establishing Regular Contact with the EPA.
- a. Immediately upon the Effective Date of this Order and until further notice by the EPA, Respondent shall submit MOR information weekly as follows:
 - i. Reports must run from Sunday to Saturday each week;
 - ii. Weekly reports must be submitted to the EPA and MSDH by Tuesday of the following week (e.g., for the monitoring timeframe of Sunday, March 29 through Saturday, April 4, the report must be submitted by Tuesday, April 7).
 - iii. IFE data must be submitted with each weekly MOR until further notice.
 - iv. If at any time, the Respondent is notified, by the EPA or MSDH that a revision to the MOR is required, the Respondent shall implement the revision on the following report required unless the EPA or MSDH provides a specific alternate timeline for implementation.
 - b. Within five business days of the Effective Date of this Order, Respondent shall begin submitting weekly updates to the EPA on Respondent's progress complying with this Order. Respondent shall submit subsequent weekly reports on Tuesday of each subsequent week. Each weekly update shall identify and describe all actions taken in the previous week to meet the requirements of this Order.
 - c. Within seven business days of the Effective Date of this Order, Respondent shall contact the EPA to set up a mutually agreeable meeting schedule. The purpose of the meetings to be scheduled pursuant to this paragraph are to accomplish the following goals:
 - i. Provide an opportunity for the Respondent and the EPA to clarify requirements and timelines,
 - ii. Provide an opportunity for Respondent to report to the EPA any issues, concerns, or problems it faces in complying with the terms of this Order, and

- iii. Provide an opportunity for Respondent and the EPA to maintain an open channel of communication wherein new information can be shared.
 - d. Respondent shall prepare an outline of all the requirements in this Order, how Respondent plans to meet all the requirements of this Order, and submit to the EPA in writing at least 48 hours in advance of the first agreed-upon meeting required under Paragraph 43(c) above. If this falls on a weekend, Respondent shall provide the outline on the last workday before the meeting.
44. Respondent shall send all reports, notifications, documentation and submittals required by this Order in writing or via e-mail to:

U.S. EPA, Region 4
Enforcement and Compliance Assurance Division
Attn: Amanda Driskell
U.S. Environmental Protection Agency
61 Forsyth Street
Atlanta, GA 30303
Email: driskell.amanda@epa.gov

45. All reports, notifications, documentation, and submissions required by this Order must be signed by a duly authorized representative of Respondent and must include the following statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

IV. PARTIES BOUND

46. The provisions of this Order shall apply to and be binding upon Respondent, its officers, employees, agents, successors, and assigns.

V. GENERAL PROVISIONS

47. This Order constitutes final agency action. Under Section 1448(a) of the SDWA, 42 U.S.C. § 300j-7(a), Respondent may seek federal judicial review.
48. The EPA may modify this Order to ensure protection of human health. The EPA will communicate any modification(s) to Respondent in writing and the modification(s) shall be incorporated into this Order.
49. Compliance with the terms and conditions of this Order shall not in any way be construed to relieve Respondent from its obligations to comply with all provisions of federal, state, or local law, nor shall it be construed to be a determination of any issue related to any federal, state or local permit.

Compliance with this Order shall not be a defense to any actions subsequently commenced for any violation of federal laws and regulations administered by the EPA, and it is the responsibility of Respondent to comply with such laws and regulations.

50. Pursuant to SDWA Section 1431(b), 42 U.S.C. § 300i(b), in the event Respondent violates, fails or refuses to comply with any of the terms or provisions of this Order, the EPA may commence a civil action in U.S. District Court to require compliance with this Order and to assess a civil penalty of up to \$24,386 per day of violation under the SDWA, as adjusted by the Federal Civil Penalties Inflation Adjustment Act of 1990, amended by the Debt Collection Improvement Act of 1996, and the subsequent Civil Monetary Penalty Inflation Adjustment Rule, 40 C.F.R. § 19.
51. The EPA reserves all rights against Respondent and all other persons to take any further civil, criminal, or administrative enforcement action pursuant to any available legal authority, and to exercise its information gathering and inspection authorities. Nothing in this Order shall preclude the EPA from taking any additional enforcement actions, including modification of this Order or issuance of additional Orders, and/or additional actions as the EPA may deem necessary, and/or from requiring Respondent in the future to perform additional activities pursuant to the SDWA or any other applicable law.

VI. EFFECTIVE DATE

52. Under SDWA Section 1431, 42 U.S.C. § 300i, this Order shall be effective immediately upon Respondent's receipt of this Order. If modifications are made by the EPA to this Order, such modifications will be effective on the date received by Respondent. This Order shall remain in effect until the provisions identified in the Order have been met in accordance with the EPA's written approval.

VII. TERMINATION

53. The provisions of this Order shall be deemed satisfied upon Respondent's receipt of written notice from the EPA that Respondent has demonstrated, to the satisfaction of the EPA, that the terms of this Order have been satisfactorily completed.

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY:

Carol L. Kemker

Carol L. Kemker, Director

3/27/2020

Date

Enforcement and Compliance Assurance Division
Region 4

ATTACHMENT I

Sampling Requirements

# of Connections Affected	# of Samples Required	# of Connections Affected	# of Samples Required
1 – 100	2	4,301 – 5,700	18
101 – 300	3	5,701 – 8,300	20
301 – 500	4	8,301 – 11,000	30
501 – 700	5	11,001 – 13,000	40
701 – 900	6	13,001 – 16,000	50
901 – 1,100	7	16,001 – 19,000	60
1,101 – 1,300	8	19,001 – 23,000	70
1,301 – 1,600	9	23,001 – 27,000	80
1,601 – 2,200	10	27,001 – 32,000	90
2,201 – 2,500	11	32,001 – 43,000	100
2,501 – 2,800	12	43,001 – 73,000	120
2,801 – 4,300	15	73,001 – 107,000	150

Note: Equivalent connections (and population served) will be considered when determining the number of samples which must be collected for a system with a large ratio of population to connections.

Mailing Addresses for the CCs:

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City of Jackson Department of Public Works
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Jackson, Mississippi 39205-0017

William Moody, MSDH
Bureau of Public Water Supply
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2423 North State Street
Jackson, MS 39215-1700